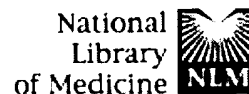


## WEST Search History

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| L13  | L12 AND human insulin precursor                    | 14               | L13                           |
| L12  | ((530/300  530/303  530/350 )!.CCLS. )             | 10576            | L12                           |
| L11  | L2 AND human insulin precursor                     | 5                | L11                           |
| L10  | L9 AND chaotropic                                  | 82               | L10                           |
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| L5   | L4 AND mercaptan                                   | 1                | L5                            |
| L4   | L3 AND chaotropic                                  | 105              | L4                            |
| L3   | L2 AND human insulin                               | 710              | L3                            |
| L2   | ((435/69.4  435/226  435/320.1  435/325 )!.CCLS. ) | 18545            | L2                            |
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Jarnagin

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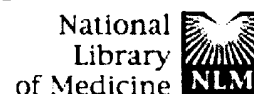
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303314 HUMANS  
1258052 HUMAN  
(HUMAN OR HUMANS)  
148422 INSULIN  
1884 INSULINS  
148457 INSULIN  
(INSULIN OR INSULINS)  
186383 PRECURSOR  
93543 PRECURSORS  
250019 PRECURSOR  
(PRECURSOR OR PRECURSORS)  
L1 23 HUMAN INSULIN PRECURSOR  
(HUMAN(W)INSULIN(W)PRECURSOR)

=> D L1 1-23

L1 ANSWER 1 OF 23 CAPLUS COPYRIGHT 2003 ACS  
AN 2002:964382 CAPLUS  
DN 138:38146  
TI Method for making insulin precursors and insulin precursor analogs  
IN Kjeldsen, Thomas Borglum; Diers, Ivan  
PA Novo Nordisk A/S, Den.  
SO PCT Int. Appl., 22 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

|      | PATENT NO.       | KIND   | DATE     | APPLICATION NO. | DATE     |
|------|------------------|--|----------|-----------------|----------|
| PI   | WO 2002100887    | A2   | 20021219 | WO 2002-DK376   | 20020603 |
|      | W:               | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |          |                 |          |
|      | RW:              | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG   |          |                 |          |
|      | US 2003040601    | A1   | 20030227 | US 2002-166241  | 20020607 |
| PRAI | DK 2001-894      | A  | 20010608 |                 |          |
|      | US 2001-299091P  | P  | 20010618 |                 |          |
| OS   | MARPAT 138:38146 |  |          |                 |          |

L1 ANSWER 2 OF 23 CAPLUS COPYRIGHT 2003 ACS  
AN 2002:777982 CAPLUS  
DN 137:299873  
TI Method for making \*\*\*human\*\*\* \*\*\*insulin\*\*\* \*\*\*precursors\*\*\*  
IN Kjeldsen, Thomas Borglum; Ludvigsen, Svend  
PA Novo Nordisk A/S, Den.  
SO PCT Int. Appl., 24 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

|    | PATENT NO.    | KIND   | DATE     | APPLICATION NO. | DATE     |
|----|---------------|--|----------|-----------------|----------|
| PI | WO 2002079251 | A2   | 20021010 | WO 2002-DK191   | 20020321 |
|    | W:            | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |          |                 |          |
|    | RW:           | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG   |          |                 |          |

PRAI DK 2001-548 A 20010402  
OS MARPAT 137:299873

L1 ANSWER 3 OF 23 CAPLUS COPYRIGHT 2003 ACS  
AN 2002:427674 CAPLUS  
DN 137:1510  
TI Construction of recombinant yeast strain of Pichia pastoris for expression  
of \*\*\*human\*\*\* \*\*\*insulin\*\*\* \*\*\*precursor\*\*\*  
IN Annibali, Nestor  
PA Laboratorios Beta S.A., Argent.  
SO Eur. Pat. Appl., 38 pp.  
CODEN: EPXXDW  
DT Patent  
LA English  
FAN.CNT 1

|      | PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|------|--|------|----------|-----------------|----------|
| PI   | EP 1211314   | A2   | 20020605 | EP 2001-121987  | 20010913 |
|      | EP 1211314   | A3   | 20020710 |                 |          |
|      | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,<br>IE, SI, LT, LV, FI, RO, MK, CY, AL, TR |      |          |                 |          |
|      | BR 2001005162  | A    | 20020521 | BR 2001-5162    | 20010912 |
| PRAI | AR 2000-104797   | A    | 20000913 |                 |          |

L1 ANSWER 4 OF 23 CAPLUS COPYRIGHT 2003 ACS  
AN 2001:765696 CAPLUS  
DN 136:48575  
TI Analysis of the distribution of amino acids, amino acid pairs and triplets  
in \*\*\*human\*\*\* \*\*\*insulin\*\*\* \*\*\*precursor\*\*\* and its four  
variants according to the random mechanism  
AU Wu, Guang; Yan, Shao-Min  
CS Laboratoire de Toxicocinetique et Pharmacocinetique, Faculte de Pharmacie,  
Universite de la Mediterranee Aix-Marseille II, Marseille, F-13385, Fr.  
SO Journal of Biochemistry, Molecular Biology and Biophysics (2001), 5(4),  
293-300  
CODEN: JBMBF6; ISSN: 1025-8140  
PB Harwood Academic Publishers  
DT Journal  
LA English  
RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 5 OF 23 CAPLUS COPYRIGHT 2003 ACS  
AN 2001:343309 CAPLUS  
DN 134:339588  
TI Production and purification of single chain \*\*\*human\*\*\*  
\*\*\*insulin\*\*\* \*\*\*precursors\*\*\* with various fusion peptides  
AU Cho, Chung Woo; Park, Sun Ho; Nam, Doo Hyun  
CS Faculty of Engineering, Keimyung University, Taegu, 704-701, S. Korea  
SO Biotechnology and Bioprocess Engineering (2001), 6(2), 144-149  
CODEN: BBEIAU; ISSN: 1226-8372  
PB Korean Society for Biotechnology and Bioengineering  
DT Journal  
LA English  
RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 6 OF 23 CAPLUS COPYRIGHT 2003 ACS  
AN 2001:293295 CAPLUS  
DN 135:87352  
TI Gene therapy for streptozotocin-induced diabetic mice by electroporational  
transfer of naked \*\*\*human\*\*\* \*\*\*insulin\*\*\* \*\*\*precursor\*\*\*  
DNA into skeletal muscle in vivo  
AU Yin, D.; Tang, J.-G.  
CS National Laboratory of Protein Engineering and Plant Genetic Engineering,  
Peking University, College of Life Sciences, Beijing, 100871, Peop. Rep.  
China  
SO FEBS Letters (2001), 495(1,2), 16-20  
CODEN: FEBLAL; ISSN: 0014-5793  
PB Elsevier Science B.V.  
DT Journal  
LA English  
RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 7 OF 23 CAPLUS COPYRIGHT 2003 ACS

AN 2000:397959 CAPLUS  
DN 133:188612  
TI Use of *Bacillus brevis* for synthesis and secretion of Des-B30 single-chain  
\*\*\*human\*\*\* \*\*\*insulin\*\*\* \*\*\*precursor\*\*\*  
AU Koh, Mamoru; Hanagata, Hiroshi; Ebisu, Shogo; Morihara, Kazuyuki; Takagi,  
Hiroaki  
CS Institute for Applied Life Science, Graduate School, University of East  
Asia, Shimonoseki, 751-0807, Japan  
SO Bioscience, Biotechnology, and Biochemistry (2000), 64(5), 1079-1081  
CODEN: BBBIEJ; ISSN: 0916-8451  
PB Japan Society for Bioscience, Biotechnology, and Agrochemistry  
DT Journal  
LA English  
RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 8 OF 23 CAPLUS COPYRIGHT 2003 ACS  
AN 2000:200614 CAPLUS  
DN 133:22490  
TI New strategy for the design of ligands for the purification of  
pharmaceutical proteins by affinity chromatography  
AU Sproule, K.; Morrill, P.; Pearson, J. C.; Burton, S. J.; Hejnaes, K. R.;  
Valore, H.; Ludvigsen, S.; Lowe, C. R.  
CS Institute of Biotechnology, University of Cambridge, Cambridge, UK  
SO Journal of Chromatography, B: Biomedical Sciences and Applications (2000),  
740(1), 17-33  
CODEN: JCBBEP; ISSN: 0378-4347  
PB Elsevier Science B.V.  
DT Journal  
LA English  
RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 9 OF 23 CAPLUS COPYRIGHT 2003 ACS  
AN 1999:285828 CAPLUS  
DN 131:97699  
TI A comparison of three dimensional structures of biosynthesized  
preproinsulin and insulin using NMR  
AU Oh, Mina; Mok, K. Hun; Lim, Yoongho  
CS Department of Applied Biology and Chemistry, Konkuk University, Seoul,  
133-701, S. Korea  
SO Agricultural Chemistry and Biotechnology (English Edition) (1998), 41(8),  
572-577  
CODEN: ACBTFF; ISSN: 1229-2737  
PB Korean Society of Agricultural Chemistry and Biotechnology  
DT Journal  
LA English  
RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 10 OF 23 CAPLUS COPYRIGHT 2003 ACS  
AN 1999:285827 CAPLUS  
DN 131:97698  
TI A comparison of three dimensional structures of insulin, proinsulin and  
preproinsulin using computer aided molecular modeling  
AU Oh, Mina; Mok, K. Hun; Lim, Yoongho  
CS Department of Applied Biology and Chemistry, Konkuk University, Seoul,  
133-701, S. Korea  
SO Agricultural Chemistry and Biotechnology (English Edition) (1998), 41(8),  
568-571  
CODEN: ACBTFF; ISSN: 1229-2737  
PB Korean Society of Agricultural Chemistry and Biotechnology  
DT Journal  
LA English  
RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 11 OF 23 CAPLUS COPYRIGHT 2003 ACS  
AN 1997:54270 CAPLUS  
DN 126:141722  
TI The rapid identification of protein through its amino acid composition  
AU Wang, Huaichun; Xia, Yun; He, Yu  
CS Institute of Medical Information, Academy of Military Medical Sciences,  
Beijing, 100850, Peop. Rep. China  
SO Shengwu Huaxue Yu Shengwu wuli xuebao (1996), 28(3), 293-299  
CODEN: SHWPAU; ISSN: 0582-9879

PB Shanghai Kexue Jishu Chubanshe  
DT Journal  
LA Chinese

L1 ANSWER 12 OF 23 CAPLUS COPYRIGHT 2003 ACS  
AN 1996:337172 CAPLUS  
DN 125:76661  
TI Recombinant A17 Lys human insulin: purification and characterization  
AU Zhang, Bao-yan; Zhang, You-shang; Cai, Ruo-rong; Feng, You-min; He, Qian-bin  
CS State Key Lab. of Mol. Biology, Shanghai Inst. Biochem., Shanghai, 200031, Peop. Rep. China  
SO Biochemistry and Molecular Biology International (1995), 36(5), 1079-1085  
CODEN: BMBIES; ISSN: 1039-9712  
PB Academic  
DT Journal  
LA English

L1 ANSWER 13 OF 23 CAPLUS COPYRIGHT 2003 ACS  
AN 1995:1007421 CAPLUS  
DN 124:107969  
TI Preparation of Tyr-C-peptide from genetically altered \*\*\*human\*\*\*  
\*\*\*insulin\*\*\* \*\*\*precursor\*\*\*  
AU Sun, Huaiyu; Tang, Jianguo; Hu, Meihao  
CS College of Life Sciences, Peking University, Beijing, 100871, Peop. Rep. China  
SO Applied Biochemistry and Biotechnology (1995), 55(3), 167-74  
CODEN: ABIBDL; ISSN: 0273-2289  
PB Humana  
DT Journal  
LA English

L1 ANSWER 14 OF 23 CAPLUS COPYRIGHT 2003 ACS  
AN 1995:928289 CAPLUS  
DN 124:46622  
TI Secretion expression of \*\*\*human\*\*\* \*\*\*insulin\*\*\*  
\*\*\*precursor\*\*\* in yeast and preparation of human insulin  
IN Zhang, Youshang; Feng, Youmin; Zhu, Shanquan  
PA Shanghai Institute of Biochemistry, Peop. Rep. China  
SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 23 pp.  
CODEN: CNXXEV  
DT Patent  
LA Chinese  
FAN.CNT 1

|      | PATENT NO.     | KIND | DATE     | APPLICATION NO. | DATE     |
|------|----------------|------|----------|-----------------|----------|
|      | -----          | ---- | -----    | -----           | -----    |
| PI   | CN 1101945     | A    | 19950426 | CN 1993-112586  | 19931018 |
|      | CN 1049249     | B    | 20000209 |                 |          |
| PRAI | CN 1993-112586 |      | 19931018 |                 |          |

L1 ANSWER 15 OF 23 CAPLUS COPYRIGHT 2003 ACS  
AN 1995:663399 CAPLUS  
DN 123:81632  
TI Host cell properties and external pH affect proinsulin production by Saccharomyces yeast  
AU Kozlov, Dmitry G.; Prahl, Natalija; Efremov, Boris D.; Peters, Lars; Wambut, Rolf; Karpychev, Igor V.; Eldarov, Mikhail A.; Benevolensky, Sergei V.  
CS Institute Genetics Selection Industrial Microorganisms, Moscow, 113545, Russia  
SO Yeast (1995), 11(8), 713-24  
CODEN: YESTE3; ISSN: 0749-503X  
PB Wiley  
DT Journal  
LA English

L1 ANSWER 16 OF 23 CAPLUS COPYRIGHT 2003 ACS  
AN 1994:708134 CAPLUS  
DN 121:308134  
TI Processing of biosynthetic human insulin analog precursors using Achromobacter lyticus lysyl-specific endopeptidase  
AU Balschmidt, P.  
CS Novo Nordisk A/S, Bagsvaerd, DK-2880, Den.  
SO Research Disclosure (1994), 365, 487-8  
CODEN: RSDSBB; ISSN: 0374-4353  
DT Journal

LA English

L1 ANSWER 17 OF 23 CAPLUS COPYRIGHT 2003 ACS

AN 1994:105174 CAPLUS

DN 120:105174

TI Direct expression of \*\*\*human\*\*\* \*\*\*insulin\*\*\* \*\*\*precursor\*\*\*  
gene in Escherichia coli and after-processing method

IN Tang, Jianguo; Hu, Meihao

PA Beijing University, Peop. Rep. China

SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 7 pp.

CODEN: CNXXEV

DT Patent

LA Chinese

FAN.CNT 1

|      | PATENT NO.     | KIND | DATE     | APPLICATION NO. | DATE     |
|------|----------------|------|----------|-----------------|----------|
| PI   | CN 1075983     | A    | 19930908 | CN 1993-103997  | 19930410 |
|      | CN 1059703     | B    | 20001220 |                 |          |
| PRAI | CN 1993-103997 |      | 19930410 |                 |          |

L1 ANSWER 18 OF 23 CAPLUS COPYRIGHT 2003 ACS

AN 1991:4881 CAPLUS

DN 114:4881

TI Manufacture of biologically active proteins such as human insulin from  
recombinant fusion protein

IN Vertesy, Laszlo; Sauber, Klaus; Ehlers, Eberhard

PA Hoechst A.-G., Germany

SO Ger. Offen., 10 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

|      | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|------|---|------|----------|-----------------|----------|
| PI   | DE 3837271  | A1   | 19900510 | DE 1988-3837271 | 19881103 |
|      | EP 367161   | A2   | 19900509 | EP 1989-120054  | 19891028 |
|      | EP 367161   | A3   | 19910925 |                 |          |
|      | EP 367161   | B1   | 19960619 |                 |          |
|      | R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE |      |          |                 |          |
|      | AT 139538   | E    | 19960715 | AT 1989-120054  | 19891028 |
|      | ES 2088883  | T3   | 19961001 | ES 1989-120054  | 19891028 |
|      | DK 8905466  | A    | 19900504 | DK 1989-5466    | 19891102 |
|      | NO 8904362  | A    | 19900504 | NO 1989-4362    | 19891102 |
|      | AU 8943977  | A1   | 19900510 | AU 1989-43977   | 19891102 |
|      | AU 618420   | B2   | 19911219 |                 |          |
|      | JP 02195896   | A2   | 19900802 | JP 1989-285089  | 19891102 |
|      | JP 2877253  | B2   | 19990331 |                 |          |
|      | ZA 8908376  | A    | 19900829 | ZA 1989-8376    | 19891103 |
|      | HU 53677  | A2   | 19901128 | HU 1989-5664    | 19891103 |
| PRAI | DE 1988-3837271                                       |      | 19881103 |                 |          |

L1 ANSWER 19 OF 23 CAPLUS COPYRIGHT 2003 ACS

AN 1988:199012 CAPLUS

DN 108:199012

TI Human Insulin by Tryptic Transpeptidations of Porcine Insulin and  
Biosynthetic Precursors

AU Markussen, J.

CS UK

SO (1987) Publisher: (MTP Press Ltd., Lancaster, UK), 240 pp. .pnd.35.00.

DT Book

LA English

L1 ANSWER 20 OF 23 CAPLUS COPYRIGHT 2003 ACS

AN 1988:166031 CAPLUS

DN 108:166031

TI HPLC quantification of rDNA polypeptides like insulin precursors produced  
in yeast

AU Snel, L.; Damgaard, U.; Mollerup, I.

CS Novo Res. Inst., Bagsvaerd, DK-2880, Den.

SO Chromatographia (1987), 24, 329-32

CODEN: CHRGB7; ISSN: 0009-5893

DT Journal

LA English

L1 ANSWER 21 OF 23 CAPLUS COPYRIGHT 2003 ACS

AN 1988:144407 CAPLUS



DN 108:144407  
 TI Sequence of a New world prolate insulin having low biologic potency and immunoreactivity  
 AU Seino, Susumu; Steiner, Donald F.; Bell, Graeme I.  
 CS Howard Hughes Med. Inst., Univ. Chicago, Chicago, IL, 60637, USA  
 SO Proceedings of the National Academy of Sciences of the United States of America (1987), 84(21), 7423-7  
 CODEN: PNASA6; ISSN: 0027-8424  
 DT Journal  
 LA English

L1 ANSWER 22 OF 23 CAPLUS COPYRIGHT 2003 ACS  
 AN 1987:65841 CAPLUS  
 DN 106:65841  
 TI Insulin precursors and preparation of human insulin  
 IN Thim, Lars; Norris, Kjeld; Hansen, Mogens Trier  
 PA Novo Industri A/S, Den.  
 SO Eur. Pat. Appl., 42 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 FAN.CNT 1

|      | PATENT NO.                                    | KIND | DATE     | APPLICATION NO. | DATE     |
|------|---|------|----------|-----------------|----------|
| PI   | EP 195691                                     | A1   | 19860924 | EP 1986-302133  | 19860321 |
|      | EP 195691                                     | B1   | 19911106 |                 |          |
|      | R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE |      |          |                 |          |
|      | DK 8501293                                    | A    | 19860923 | DK 1985-1293    | 19850322 |
|      | ZA 8601953                                    | A    | 19861126 | ZA 1986-1953    | 19860317 |
|      | DK 8601257                                    | A    | 19861117 | DK 1986-1257    | 19860319 |
|      | DK 158270                                     | B    | 19900423 |                 |          |
|      | DK 158270                                     | C    | 19900910 |                 |          |
|      | JP 61221200                                   | A2   | 19861001 | JP 1986-60995   | 19860320 |
|      | JP 06048993                                   | B4   | 19940629 |                 |          |
|      | FI 8601198                                    | A    | 19860923 | FI 1986-1198    | 19860321 |
|      | FI 87801                                      | B    | 19921113 |                 |          |
|      | FI 87801                                      | C    | 19930225 |                 |          |
|      | NO 8601120                                    | A    | 19860923 | NO 1986-1120    | 19860321 |
|      | NO 172646                                     | B    | 19930510 |                 |          |
|      | NO 172646                                     | C    | 19930818 |                 |          |
|      | AU 8655005                                    | A1   | 19860925 | AU 1986-55005   | 19860321 |
|      | AU 586855                                     | B2   | 19890727 |                 |          |
|      | ES 553231                                     | A1   | 19880516 | ES 1986-553231  | 19860321 |
|      | AT 69266                                      | E    | 19911115 | AT 1986-302133  | 19860321 |
|      | ES 557227                                     | A1   | 19871001 | ES 1986-557227  | 19861128 |
|      | JP 06133777                                   | A2   | 19940517 | JP 1993-121394  | 19930524 |
|      | JP 08008871                                   | B4   | 19960131 |                 |          |
|      | JP 08023985                                   | A2   | 19960130 | JP 1995-178875  | 19950714 |
|      | JP 2553326                                    | B2   | 19961113 |                 |          |
| PRAI | DK 1985-1293                                  |      | 19850322 |                 |          |
|      | EP 1986-302133                                |      | 19860321 |                 |          |

L1 ANSWER 23 OF 23 CAPLUS COPYRIGHT 2003 ACS  
 AN 1986:143163 CAPLUS  
 DN 104:143163  
 TI Insulin precursors for preparing human insulin from such insulin precursors  
 IN Markussen, Jan; Fiil, Niels; Ammerer, Gustav; Hansen, Mogens Trier; Thim, Lars; Norris, Kjeld; Voigt, Hans Ole  
 PA Novo Industri A/S, Den.  
 SO Eur. Pat. Appl., 46 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 FAN.CNT 1

|    | PATENT NO.                                    | KIND | DATE     | APPLICATION NO. | DATE     |
|----|---|------|----------|-----------------|----------|
| PI | EP 163529                                     | A1   | 19851204 | EP 1985-303775  | 19850529 |
|    | EP 163529                                     | B1   | 19910821 |                 |          |
|    | R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE |      |          |                 |          |
|    | ZA 8504083                                    | A    | 19860129 | ZA 1985-4083    | 19850520 |
|    | FI 8502135                                    | A    | 19851201 | FI 1985-2135    | 19850529 |
|    | FI 89183                                      | B    | 19930514 |                 |          |
|    | FI 89183                                      | C    | 19930825 |                 |          |
|    | DK 8502385                                    | A    | 19851201 | DK 1985-2385    | 19850529 |
|    | DK 157938                                     | B    | 19900305 |                 |          |

|   |    |          |                |          |
|---|----|----------|----------------|----------|
| DK 157938                                     | C  | 19900827 |                |          |
| NO 8502132                                    | A  | 19850202 | NO 1985-2132   | 19850202 |
| NO 174351                                     | B  | 19940110 |                |          |
| NO 174351                                     | C  | 19940420 |                |          |
| AU 8543092                                    | A1 | 19851205 | AU 1985-43092  | 19850529 |
| AU 590197                                     | B2 | 19891102 |                |          |
| JP 61001389                                   | A2 | 19860107 | JP 1985-116297 | 19850529 |
| JP 06030613                                   | B4 | 19940427 |                |          |
| ES 543594                                     | A1 | 19860901 | ES 1985-543594 | 19850529 |
| US 4916212                                    | A  | 19900410 | US 1985-739123 | 19850529 |
| EP 427296                                     | A1 | 19910515 | EP 1990-121887 | 19850529 |
| EP 427296                                     | B1 | 19960925 |                |          |
| R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE |    |          |                |          |
| AT 66490                                      | E  | 19910915 | AT 1985-303775 | 19850529 |
| CA 1304022                                    | A1 | 19920623 | CA 1985-482722 | 19850529 |
| AT 143374                                     | E  | 19961015 | AT 1990-121887 | 19850529 |
| ES 551941                                     | A1 | 19861216 | ES 1986-551941 | 19860213 |
| DK 157933                                     | B  | 19900305 | DK 1987-3236   | 19870625 |
| DK 8703236                                    | A  | 19870625 |                |          |
| DK 157933                                     | C  | 19900827 |                |          |
| JP 06141866                                   | A2 | 19940524 | JP 1993-121649 | 19930524 |
| JP 07121226                                   | B4 | 19951225 |                |          |
| JP 06141865                                   | A2 | 19940524 | JP 1993-121694 | 19930524 |
| JP 07046998                                   | B4 | 19950524 |                |          |
| JP 07309896                                   | A2 | 19951128 | JP 1995-142085 | 19950608 |
| JP 2519023                                    | B2 | 19960731 |                |          |
| PRAI DK 1984-2665                             |    | 19840530 |                |          |
| DK 1985-582                                   |    | 19850208 |                |          |
| DK 1985-2385                                  |    | 19850529 |                |          |
| EP 1985-303775                                |    | 19850529 |                |          |

=> s urea AND insulin

178068 UREA

8613 UREAS

180981 UREA

(UREA OR UREAS)

148422 INSULIN

1884 INSULINS

148457 INSULIN

(INSULIN OR INSULINS)

L2 2181 UREA AND INSULIN

=> S L2 AND conformation

248819 CONFORMATION

42540 CONFORMATIONS

258811 CONFORMATION

(CONFORMATION OR CONFORMATIONS)

L3 31 L2 AND CONFORMATION

=> D L3 1-31

L3 ANSWER 1 OF 31 CAPLUS COPYRIGHT 2003 ACS

AN 2001:740961 CAPLUS

DN 136:81523

TI Heat-induced quaternary transitions in hetero- and homo-polymers of .alpha.-crystallin

AU Burgio, M. R.; Bennett, P. M.; Koretz, J. F.

CS Center for Biophysics and Department of Biology, Science Center, Rensselaer Polytechnic Institute, Troy, NY, USA

SO Molecular vision [online computer file] (2001), 7, 228-233

CODEN: MVEPFB; ISSN: 1090-0535

URL: <http://www.molvis.org/molvis/v7/a32/burgio.pdf>

PB Molecular vision

DT Journal; (online computer file)

LA English

RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 31 CAPLUS COPYRIGHT 2003 ACS

AN 2001:569707 CAPLUS

DN 135:147460

TI Correction of genetic defects using chemical chaperones

IN welch, william J.; Brown, C. Randell; Tatzelt, Jorg

PA The Regents of the University of California, USA

SO U.S., 55 pp., Cont.-in-part of U.S. 5,900,360.

CODEN: USXXAM  
DT Patent  
LA English  
FAN.CNT 2

|      | PATENT NO.     | KIND | DATE     | APPLICATION NO. | DATE     |
|------|----------------|------|----------|-----------------|----------|
| PI   | US 6270954     | B1   | 20010807 | US 1999-291406  | 19990413 |
|      | US 5900360     | A    | 19990504 | US 1997-838691  | 19970409 |
|      | US 2001021500  | A1   | 20010913 | US 2001-823657  | 20010330 |
| PRAI | US 1996-15155P | P    | 19960410 |                 |          |
|      | US 1997-838691 | A2   | 19970409 |                 |          |
|      | WO 1997-US5846 | W    | 19970409 |                 |          |
|      | US 1999-291406 | A1   | 19990413 |                 |          |

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 3 OF 31 CAPLUS COPYRIGHT 2003 ACS  
AN 2001:228920 CAPLUS  
DN 134:247226  
TI Methods for identifying an agent that corrects defective protein folding  
IN Pedersen, Peter L.; Ko, Young Hee  
PA The John Hopkins University School of Medicine, USA  
SO PCT Int. Appl., 65 pp.  
CODEN: PIXXD2

DT Patent  
LA English  
FAN.CNT 1

|     | PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|-----|--|------|----------|-----------------|----------|
| PI  | WO 2001021652  | A1   | 20010329 | WO 2000-US26193 | 20000922 |
| W:  | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |      |          |                 |          |
| RW: | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG   |      |          |                 |          |

PRAI US 1999-155876P P 19990924

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 4 OF 31 CAPLUS COPYRIGHT 2003 ACS  
AN 2000:194076 CAPLUS  
DN 133:73461  
TI Relationship between nutritionally-mediated placental growth restriction and fetal growth, body composition and endocrine status during late gestation in adolescent sheep  
AU Wallace, J. M.; Bourke, D. A.; Aitken, R. P.; Palmer, R. M.; Da Silva, P.; Cruickshank, M. A.  
CS Rowett Research Institute, Aberdeen, AB21 9SB, UK  
SO Placenta (2000), 21(1), 100-108  
CODEN: PLACDF; ISSN: 0143-4004  
PB W. B. Saunders Co. Ltd.  
DT Journal  
LA English

RE.CNT 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 5 OF 31 CAPLUS COPYRIGHT 2003 ACS  
AN 1999:416379 CAPLUS  
DN 131:169753  
TI Switching maternal dietary intake at the end of the first trimester has profound effects on placental development and fetal growth in adolescent ewes carrying singleton fetuses  
AU wallace, Jacqueline M.; Bourke, Deirdre A.; Aitken, Raymond P.; Cruickshank, Morven A.  
CS Rowett Research Institute, Bucksburn, Aberdeen, AB21 9SB, UK  
SO Biology of Reproduction (1999), 61(1), 101-110  
CODEN: BIREBV; ISSN: 0006-3363  
PB Society for the Study of Reproduction  
DT Journal  
LA English

RE.CNT 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 6 OF 31 CAPLUS COPYRIGHT 2003 ACS

AN 1997:119202 CAPLUS

DN 126:129012

TI Folding and disulfide bonding of IGF-I., IGFBP-3, and their complexes after their recombinant production

IN Sommer, Andreas; Ogawa, Yasushi; Tao, Peggy

PA Celtrix Pharmaceuticals, Inc., USA

SO PCT Int. Appl., 43 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

|      | PATENT NO.     | KIND   | DATE     | APPLICATION NO. | DATE     |
|------|----------------|--|----------|-----------------|----------|
| PI   | WO 9640736     | A1   | 19961219 | WO 1996-US8113  | 19960530 |
|      | W:             | AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK |          |                 |          |
|      | RW:            | KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR   |          |                 |          |
|      | US 5789547     | A  | 19980804 | US 1995-482271  | 19950607 |
|      | CA 2223495     | AA   | 19961219 | CA 1996-2223495 | 19960530 |
|      | AU 9659576     | A1   | 19961230 | AU 1996-59576   | 19960530 |
|      | AU 703489      | B2   | 19990325 |                 |          |
|      | EP 832098      | A1   | 19980401 | EP 1996-916829  | 19960530 |
|      | EP 832098      | B1   | 20020911 |                 |          |
|      | R:             | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI   |          |                 |          |
|      | CN 1214689     | A  | 19990421 | CN 1996-195432  | 19960530 |
|      | JP 11507037    | T2   | 19990622 | JP 1996-500881  | 19960530 |
|      | AT 223926      | E  | 20020915 | AT 1996-916829  | 19960530 |
|      | NO 9705749     | A  | 19980127 | NO 1997-5749    | 19971205 |
| PRAI | US 1995-482271 | A  | 19950607 |                 |          |
|      | WO 1996-US8113 | W  | 19960530 |                 |          |

L3 ANSWER 7 OF 31 CAPLUS COPYRIGHT 2003 ACS

AN 1996:617214 CAPLUS

DN 126:3980

TI Anomalous mobility of sulfitolyzed proteins in SDS-PAGE. Analysis and applications

AU Malhotra, M.; Sahal, D.

CS International Centre Genetic Eng. Biotechnology, Aruna Asaf Ali Marg, Recombinant Gene Products, New Delhi, India

SO International Journal of Peptide & Protein Research (1996), 48(3), 240-248

CODEN: IJPPC3; ISSN: 0367-8377

PB Munksgaard

DT Journal

LA English

L3 ANSWER 8 OF 31 CAPLUS COPYRIGHT 2003 ACS

AN 1996:398577 CAPLUS

DN 125:49528

TI Effect of solvent additives on the thermal stability of \*\*\*insulin\*\*\*

AU Gupta, Vinita; Bhat, Rajiv

CS Centre Biotechnology, Jawaharlal Nehru University, New Delhi, 110 067, India

SO Perspectives on Protein Engineering & Complementary Technologies, Collected Papers, International Symposium, 3rd, Oxford, Sept. 13-17, 1994 (1995), Meeting Date 1994, 209-212. Editor(s): Geisow, Michael J.; Epton, Roger. Publisher: Mayflower worldwide, Kingswinford, UK.

CODEN: 62ZQAP

DT Conference

LA English

L3 ANSWER 9 OF 31 CAPLUS COPYRIGHT 2003 ACS

AN 1995:610625 CAPLUS

DN 123:8040

TI Extraction of polypeptide inclusion bodies from expression hosts with a two-phase aqueous system with solubilization and renaturation of the polypeptide

IN Builder, Stuart; Hart, Roger; Lester, Philip; Ogez, John; Reifsnnyder, David

PA Genentech, Inc., USA

SO PCT Int. Appl., 69 pp.

DT Patent  
LA English  
FAN.CNT 1

|      | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|------|---|------|----------|-----------------|----------|
| PI   | WO 9506059  | A1   | 19950302 | WO 1994-US9089  | 19940810 |
|      | W: AU, CA, JP, US   |      |          |                 |          |
|      | RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE    |      |          |                 |          |
|      | US 5407810  | A    | 19950418 | US 1993-110663  | 19930820 |
|      | CA 2167910  | AA   | 19950302 | CA 1994-2167910 | 19940810 |
|      | AU 9475616  | A1   | 19950321 | AU 1994-75616   | 19940810 |
|      | AU 673624   | B2   | 19961114 |                 |          |
|      | EP 714403   | A1   | 19960605 | EP 1994-925830  | 19940810 |
|      | EP 714403   | B1   | 19980610 |                 |          |
|      | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE |      |          |                 |          |
|      | JP 09501931   | T2   | 19970225 | JP 1994-507623  | 19940810 |
|      | AT 167193   | E    | 19980615 | AT 1994-925830  | 19940810 |
|      | ES 2119222  | T3   | 19981001 | ES 1994-925830  | 19940810 |
|      | US 5723310  | A    | 19980303 | US 1995-385187  | 19950207 |
|      | US 5695958  | A    | 19971209 | US 1995-446882  | 19950517 |
| PRAI | US 1993-110663  |      | 19930820 |                 |          |
|      | WO 1994-US9089  |      | 19940810 |                 |          |
|      | US 1994-318627  |      | 19941011 |                 |          |
|      | US 1995-385187  |      | 19950207 |                 |          |

L3 ANSWER 10 OF 31 CAPLUS COPYRIGHT 2003 ACS  
AN 1994:293570 CAPLUS  
DN 120:293570  
TI Sorbent families of peptides for affinity chromatography supports and labeled reagents  
IN Kauvar, Lawrence M.  
PA Terrapin Technologies, Inc., USA  
SO PCT Int. Appl., 47 pp.  
CODEN: PIXXD2

DT Patent  
LA English  
FAN.CNT 1

|      | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|------|---|------|----------|-----------------|----------|
| PI   | WO 9402225  | A1   | 19940203 | WO 1993-US6578  | 19930713 |
|      | W: AU, CA, JP   |      |          |                 |          |
|      | RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE    |      |          |                 |          |
|      | EP 652798   | A1   | 19950517 | EP 1993-917148  | 19930713 |
|      | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE |      |          |                 |          |
|      | JP 07509400   | T2   | 19951019 | JP 1993-504528  | 19930713 |
|      | AU 675446   | B2   | 19970206 | AU 1993-46758   | 19930713 |
|      | AU 9346758  | A1   | 19940214 |                 |          |
|      | US 5599901  | A    | 19970204 | US 1994-248538  | 19940524 |
|      | US 5801225  | A    | 19980901 | US 1996-690605  | 19960731 |
| PRAI | US 1992-920335  | A    | 19920727 |                 |          |
|      | WO 1993-US6578  | W    | 19930713 |                 |          |
|      | US 1994-248538  | A3   | 19940524 |                 |          |

L3 ANSWER 11 OF 31 CAPLUS COPYRIGHT 2003 ACS  
AN 1993:648880 CAPLUS  
DN 119:248880  
TI Effects of growth hormone-releasing factor and(or) thyrotropin-releasing hormone on growth, feed efficiency, carcass characteristics, and blood hormones and metabolites in beef heifers  
AU Enright, W. J.; Prendiville, D. J.; Spicer, L. J.; Stricker, P. R.; Moloney, A. P.; Mowles, T. F.; Campbell, R. M.  
CS Grange Res. Cent., Teagasc, Dunsany, Ire.  
SO Journal of Animal Science (Savoy, IL, United States) (1993), 71(9), 2395-405  
CODEN: JANSAG; ISSN: 0021-8812  
DT Journal  
LA English

L3 ANSWER 12 OF 31 CAPLUS COPYRIGHT 2003 ACS  
AN 1993:537529 CAPLUS  
DN 119:137529  
TI Method for refolding \*\*\*insulin\*\*\* -like growth factor I to active \*\*\*conformation\*\*\*  
IN Chang, Judy Yi Huei; McFarland, Nancy C.; Swartz, James R.  
PA Genentech, Inc., USA

SO PCT Int. Appl., 62 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

|      | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|------|---|------|----------|-----------------|----------|
| PI   | WO 9311240  | A1   | 19930610 | WO 1992-US10625 | 19921204 |
|      | W: CA, JP   |      |          |                 |          |
|      | RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE    |      |          |                 |          |
|      | US 5288931  | A    | 19940222 | US 1991-808451  | 19911206 |
|      | EP 618971   | A1   | 19941012 | EP 1993-901363  | 19921204 |
|      | EP 618971   | B1   | 19990317 |                 |          |
|      | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE |      |          |                 |          |
|      | ES 2131573  | T3   | 19990801 | ES 1993-901363  | 19921204 |
|      | US 5410026  | A    | 19950425 | US 1993-161044  | 19931202 |
| PRAI | US 1991-808451  |      | 19911206 |                 |          |
|      | WO 1992-US10625   |      | 19921204 |                 |          |

L3 ANSWER 13 OF 31 CAPLUS COPYRIGHT 2003 ACS

AN 1991:627782 CAPLUS

DN 115:227782

TI Immunoaffinity chromatography method using denaturation-renaturation for protein purification, and production and immobilization of monoclonal antibody to human \*\*\*insulin\*\*\* receptor fragment for use therein

IN Markussen, Jan

PA Novo-Nordisk A/S, Den.

SO PCT Int. Appl., 21 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

|      | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|------|---|------|----------|-----------------|----------|
| PI   | WO 9107428  | A1   | 19910530 | WO 1990-DK298   | 19901120 |
|      | W: AU, CA, FI, JP, KR, NO, US                             |      |          |                 |          |
|      | RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE    |      |          |                 |          |
|      | AU 9067509  | A1   | 19910613 | AU 1990-67509   | 19901120 |
|      | EP 502050   | A1   | 19920909 | EP 1990-917408  | 19901120 |
|      | EP 502050   | B1   | 19960925 |                 |          |
|      | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE |      |          |                 |          |
|      | JP 05503081   | T2   | 19930527 | JP 1991-500070  | 19901120 |
|      | AT 143371   | E    | 19961015 | AT 1990-917408  | 19901120 |
|      | US 5317092  | A    | 19940531 | US 1992-721582  | 19920605 |
| PRAI | DK 1989-5807  |      | 19891120 |                 |          |
|      | WO 1990-DK298   |      | 19901120 |                 |          |

L3 ANSWER 14 OF 31 CAPLUS COPYRIGHT 2003 ACS

AN 1991:468039 CAPLUS

DN 115:68039

TI Continuous method of refolding proteins by diluting out the solubilizing agent to restore the biological activity

IN Galliher, Parrish M.

PA Biogen N. V., USA

SO U.S., 7 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

|      | PATENT NO.     | KIND | DATE     | APPLICATION NO. | DATE     |
|------|----------------|------|----------|-----------------|----------|
| PI   | US 4999422     | A    | 19910312 | US 1988-181963  | 19880415 |
| PRAI | US 1988-181963 |      | 19880415 |                 |          |

L3 ANSWER 15 OF 31 CAPLUS COPYRIGHT 2003 ACS

AN 1989:420334 CAPLUS

DN 111:20334

TI Sensitivity and variability of the Bradford protein assay in the presence of detergents

AU Friedenauer, Susanne; Berlet, Hans H.

CS Inst. Pathochem. Gen. Neurochem., Heidelberg, D-6900, Fed. Rep. Ger.

SO Analytical Biochemistry (1989), 178(2), 263-8

CODEN: ANBCA2; ISSN: 0003-2697

DT Journal

LA English

L3 ANSWER 16 OF 31 CAPLUS COPYRIGHT 2003 ACS  
 AN 1989:22757 CAPLUS  
 DN 110:22757  
 TI Effects of the .beta.-agonist cimaterol on blood metabolite and hormone concentrations, growth and carcass composition in finishing Friesian steers  
 AU Quirke, J. F.; Allen, P.; Moloney, A. P.; Sommer, M.; Hanrahan, J. P.; Sheehan, W.; Roche, J. F.  
 CS Univ. Coll., Boehringer Ingelheim Vetmed. G.m.b.H., Fed. Rep. Ger.  
 SO Journal of Animal Physiology and Animal Nutrition (1988), 60(3), 128-36  
 CODEN: JAPNEF; ISSN: 0931-2439  
 DT Journal  
 LA English

L3 ANSWER 17 OF 31 CAPLUS COPYRIGHT 2003 ACS  
 AN 1987:29003 CAPLUS  
 DN 106:29003  
 TI Structure of human \*\*\*insulin\*\*\* receptor  
 AU Ramachandran, J.; Grunfeld, C.  
 CS Genentech, Inc., South San Francisco, CA, 94080, USA  
 SO Protides of the Biological Fluids (1986), 34, 73-6  
 CODEN: PBFPA6; ISSN: 0079-7065  
 DT Journal  
 LA English

L3 ANSWER 18 OF 31 CAPLUS COPYRIGHT 2003 ACS  
 AN 1986:30616 CAPLUS  
 DN 104:30616  
 TI \*\*\*Urea\*\*\* treatment allows dithiothreitol to release the binding subunit of the \*\*\*insulin\*\*\* receptor from the cell membrane: implications for the structural organization of the \*\*\*insulin\*\*\* receptor  
 AU Grunfeld, Carl; Shigenaga, Judy Kwan; Ramachandran, J.  
 CS Dep. Med., Univ. California, San Francisco, CA, 94121, USA  
 SO Biochemical and Biophysical Research Communications (1985), 133(2), 389-96  
 CODEN: BBRC A9; ISSN: 0006-291X  
 DT Journal  
 LA English

L3 ANSWER 19 OF 31 CAPLUS COPYRIGHT 2003 ACS  
 AN 1984:563858 CAPLUS  
 DN 101:163858  
 TI The interaction of the S-thiomethyl \*\*\*insulin\*\*\* A and B chains in solution  
 AU Hua, Qingxin; Qian, Yanqiu; Tsou, Chenlu  
 CS Inst. Biophys., Acad. Sin., Beijing, 100080, Peop. Rep. China  
 SO Biochimica et Biophysica Acta (1984), 789(2), 234-40  
 CODEN: BBACAQ; ISSN: 0006-3002  
 DT Journal  
 LA English

L3 ANSWER 20 OF 31 CAPLUS COPYRIGHT 2003 ACS  
 AN 1983:166848 CAPLUS  
 DN 98:166848  
 TI Prevention of \*\*\*insulin\*\*\* self-association and surface adsorption  
 AU Sato, Shuji; Ebert, Charles D.; Kim, Sung Wan  
 CS Dep. Pharm., Univ. Utah, Salt Lake City, UT, 84112, USA  
 SO Journal of Pharmaceutical Sciences (1983), 72(3), 228-32  
 CODEN: JPMSAE; ISSN: 0022-3549  
 DT Journal  
 LA English

L3 ANSWER 21 OF 31 CAPLUS COPYRIGHT 2003 ACS  
 AN 1978:523558 CAPLUS  
 DN 89:123558  
 TI Performance, blood and carcass characteristics of finishing steers treated with trenbolone acetate and hexestrol  
 AU Galbraith, H.; Watson, Helen B.  
 CS Aberdeen Sch. Agric., Aberdeen, UK  
 SO Veterinary Record (1978), 103(2), 28-31  
 CODEN: VETRAX; ISSN: 0042-4900  
 DT Journal  
 LA English

L3 ANSWER 22 OF 31 CAPLUS COPYRIGHT 2003 ACS  
 AN 1975:410801 CAPLUS

DN 83:10801  
 TI Conformational analysis of the circular dichroism spectra of  
 \*\*\*insulin\*\*\*, proinsulin, and C-peptides by nonlinear regression  
 AU Markussen, Jan; Voelund, Aage  
 CS Novo Res. Inst., Copenhagen, Den.  
 SO International Journal of Peptide & Protein Research (1975), 7(1), 47-56  
 CODEN: IJPPC3; ISSN: 0367-8377  
 DT Journal  
 LA English

L3 ANSWER 23 OF 31 CAPLUS COPYRIGHT 2003 ACS  
 AN 1975:58105 CAPLUS  
 DN 82:58105  
 TI Reduction-reoxidation studies with crosslinked \*\*\*insulin\*\*\*  
 derivatives  
 AU Wollmer, Axel; Brandenburg, Dietrich; Vogt, Hans P.; Schermutzki, Winrich  
 CS Abt. Physiol. Chem., Rheinisch-Westfael. Tech. Hochsch. Aachen, Aachen,  
 Fed. Rep. Ger.  
 SO Hoppe-Seyler's Zeitschrift fuer Physiologische Chemie (1974), 355(11),  
 1471-6  
 CODEN: HSZPAZ; ISSN: 0018-4888  
 DT Journal  
 LA English

L3 ANSWER 24 OF 31 CAPLUS COPYRIGHT 2003 ACS  
 AN 1973:492568 CAPLUS  
 DN 79:92568  
 TI Peptides. 91. Effects of a nonpeptide interchain crosslink on the  
 reoxidation of reduced \*\*\*insulin\*\*\*  
 AU Brandenburg, Dietrich; Wollmer, Axel  
 CS Dtsch. Wollforschungsinstit., Aachen, Fed. Rep. Ger.  
 SO Hoppe-Seyler's Zeitschrift fuer Physiologische Chemie (1973), 354(6),  
 613-27  
 CODEN: HSZPAZ; ISSN: 0018-4888  
 DT Journal  
 LA English

L3 ANSWER 25 OF 31 CAPLUS COPYRIGHT 2003 ACS  
 AN 1971:135267 CAPLUS  
 DN 74:135267  
 TI Isoelectric points and \*\*\*conformation\*\*\* of proteins. I. Effect of  
 \*\*\*urea\*\*\* on the behavior of some proteins in isoelectric focussing  
 AU Ui, Nobuo  
 CS Inst. Endocrinol., Gunma Univ., Maebashi, Japan  
 SO Biochimica et Biophysica Acta (1971), 229(3), 567-81  
 CODEN: BBACAQ; ISSN: 0006-3002  
 DT Journal  
 LA English

L3 ANSWER 26 OF 31 CAPLUS COPYRIGHT 2003 ACS  
 AN 1971:72609 CAPLUS  
 DN 74:72609  
 TI Molecular weight analysis of oligopeptides by electrophoresis in  
 polyacrylamide gel with sodium dodecyl sulfate  
 AU Swank, Richard T.; Munkres, Kenneth D.  
 CS Lab. Mol. Biol., Univ. Wisconsin, Madison, WI, USA  
 SO Analytical Biochemistry (1971), 39(2), 462-77  
 CODEN: ANBCA2; ISSN: 0003-2697  
 DT Journal  
 LA English

L3 ANSWER 27 OF 31 CAPLUS COPYRIGHT 2003 ACS  
 AN 1970:483870 CAPLUS  
 DN 73:83870  
 TI \*\*\*Insulin\*\*\* methyl ester. Specific cleavage of a peptide chain  
 resulting from a nitrogen to oxygen acyl shift at a threonine residue  
 AU Levy, Daniel; Carpenter, Frederick H.  
 CS Sch. of Med., Univ. of Southern Calif., Los Angeles, CA, USA  
 SO Biochemistry (1970), 9(16), 3215-22  
 CODEN: BICHAW; ISSN: 0006-2960  
 DT Journal  
 LA English

L3 ANSWER 28 OF 31 CAPLUS COPYRIGHT 2003 ACS  
 AN 1970:480 CAPLUS  
 DN 72:480



TI Iodination of \*\*\*insulin\*\*\* in aqueous and organic solvents  
AU Massaglia, A.; Rosa, U.; Faldut, G.; Rossi, C. A.  
CS Nucl. Res. Centre, SORIN, Saluggia, Italy  
SO Biochemical Journal (1969), 115(1), 11-18  
CODEN: BIJOAK; ISSN: 0264-6021  
DT Journal  
LA English

L3 ANSWER 29 OF 31 CAPLUS COPYRIGHT 2003 ACS  
AN 1965:30692 CAPLUS  
DN 62:30692  
OREF 62:5478c-f

TI \*\*\*Conformation\*\*\* of proteins and polypeptides. I. Extension of the  
solvent perturbation technique of difference spectroscopy to the study of  
proteins and polypeptides in organic solvents  
AU Herskovits, Theodore T.  
CS U.S. Dept. of Agr., Philadelphia, PA  
SO J. Biol. Chem. (1965), 240(2), 628-38  
DT Journal  
LA English

L3 ANSWER 30 OF 31 CAPLUS COPYRIGHT 2003 ACS  
AN 1964:83169 CAPLUS  
DN 60:83169  
OREF 60:14604a-d

TI Linear polymerization of the S-sulfonate of the B-chain of \*\*\*insulin\*\*\*  
. IV. Influence of some organic substances  
AU Hsien, Lu Tzu  
CS Acad. Sinica, Shanghai, Peop. Rep. China  
SO Sheng Wu Hua Hsueh Yu Sheng Wu Wu Li Pao (1963), 3(4), 434-41  
DT Journal  
LA Unavailable

L3 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2003 ACS  
AN 1962:40282 CAPLUS  
DN 56:40282  
OREF 56:7673i,7674a-d

TI Ultraviolet difference spectra of proteins and polypeptides  
AU Glazer, A. N.; Smith, Emil L.  
CS Univ. of Utah, Salt Lake City  
SO J. Biol. Chem. (1961), 236, 2942-7  
DT Journal  
LA Unavailable

=> file MEDLINE

=> s human insulin precursor

8003353 HUMAN  
108672 HUMANS  
8024429 HUMAN  
(HUMAN OR HUMANS)  
197338 INSULIN  
1266 INSULINS  
197352 INSULIN  
(INSULIN OR INSULINS)  
60418 PRECURSOR  
61005 PRECURSORS  
107445 PRECURSOR  
(PRECURSOR OR PRECURSORS)  
L4 7 HUMAN INSULIN PRECURSOR  
(HUMAN(W)INSULIN(W)PRECURSOR)

=> D L4 1-7

L4 ANSWER 1 OF 7 MEDLINE  
AN 2001240445 MEDLINE  
DN 21223036 PubMed ID: 11322940  
TI Gene therapy for streptozotocin-induced diabetic mice by electroporational  
transfer of naked \*\*\*human\*\*\* \*\*\*insulin\*\*\* \*\*\*precursor\*\*\*  
DNA into skeletal muscle in vivo.  
AU Yin D; Tang J G  
CS National Laboratory of Protein Engineering and Plant Genetic Engineering,  
College of Life Sciences, Peking University, 100871, Beijing, PR China.  
SO FEBS LETTERS, (2001 Apr 20) 495 (1-2) 16-20.  
Journal code: 0155157. ISSN: 0014-5793.  
CY Netherlands

DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 200105  
ED Entered STN: 20010529  
Last Updated on STN: 20010529  
Entered Medline: 20010521

L4 ANSWER 2 OF 7 MEDLINE  
AN 2001012383 MEDLINE  
DN 20335834 PubMed ID: 10879487  
TI Use of Bacillus brevis for synthesis and secretion of Des-B30 single-chain  
\*\*\*human\*\*\* \*\*\*insulin\*\*\* \*\*\*precursor\*\*\* .  
AU Koh M; Hanagata H; Ebisu S; Morihara K; Takagi H  
CS Institute for Applied Life Science, University of East Asia, Graduate  
School, Shimonoseki-shi, Yamaguchi, Japan.  
SO BIOSCIENCE, BIOTECHNOLOGY, AND BIOCHEMISTRY, (2000 May) 64 (5) 1079-81.  
Journal code: 9205717. ISSN: 0916-8451.

CY Japan  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 200010  
ED Entered STN: 20010322  
Last Updated on STN: 20010322  
Entered Medline: 20001031

L4 ANSWER 3 OF 7 MEDLINE  
AN 2000256149 MEDLINE  
DN 20256149 PubMed ID: 10798291  
TI New strategy for the design of ligands for the purification of  
pharmaceutical proteins by affinity chromatography.  
AU Sproule K; Morrill P; Pearson J C; Burton S J; Hejnaes K R; Valore H;  
Ludvigsen S; Lowe C R  
CS Institute of Biotechnology, University of Cambridge, UK.  
SO JOURNAL OF CHROMATOGRAPHY. B, BIOMEDICAL SCIENCES AND APPLICATIONS, (2000  
Mar 31) 740 (1) 17-33.  
Journal code: 9714109. ISSN: 1387-2273.

CY Netherlands  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 200006  
ED Entered STN: 20000706  
Last Updated on STN: 20000706  
Entered Medline: 20000623

L4 ANSWER 4 OF 7 MEDLINE  
AN 96112668 MEDLINE  
DN 96112668 PubMed ID: 8579343  
TI Preparation of Tyr-C-peptide from genetically altered \*\*\*human\*\*\*  
\*\*\*insulin\*\*\* \*\*\*precursor\*\*\* .  
AU Sun H; Tang J; Hu M  
CS Department of Biochemistry and Molecular Biology, College of Life  
Sciences, Peking University, Beijing, China.  
SO APPLIED BIOCHEMISTRY AND BIOTECHNOLOGY, (1995 Dec) 55 (3) 167-74.  
Journal code: 8208561. ISSN: 0273-2289.

CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199603  
ED Entered STN: 19960321  
Last Updated on STN: 20000303  
Entered Medline: 19960311

L4 ANSWER 5 OF 7 MEDLINE  
AN 96043915 MEDLINE  
DN 96043915 PubMed ID: 7581003  
TI Recombinant A17 Lys human insulin: purification and characterization.  
AU Zhang B Y; Zhang Y S; Cai R R; Feng Y M; He Q B  
CS State Key Laboratory of Molecular Biology, Shanghai Institute of  
Biochemistry, China.  
SO BIOCHEMISTRY AND MOLECULAR BIOLOGY INTERNATIONAL, (1995 Aug) 36 (5)  
1079-85.  
Journal code: 9306673. ISSN: 1039-9712.

CY Australia  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199512  
ED Entered STN: 19960124  
Last Updated on STN: 20000303  
Entered Medline: 19951222

L4 ANSWER 6 OF 7 MEDLINE  
AN 95397589 MEDLINE  
DN 95397589 PubMed ID: 7668041  
TI Host cell properties and external pH affect proinsulin production by  
Saccharomyces yeast.  
AU Kozlov D G; Prahl N; Efremov B D; Peters L; Wambut R; Karpychev I V;  
Eldarov M A; Benevolensky S V  
CS Institute of Genetics and Selection of Industrial Microorganisms, Moscow,  
Russia.  
SO YEAST, (1995 Jun 30) 11 (8) 713-24.  
Journal code: 8607637. ISSN: 0749-503X.  
CY ENGLAND: United Kingdom  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199510  
ED Entered STN: 19951020  
Last Updated on STN: 19951020  
Entered Medline: 19951012

L4 ANSWER 7 OF 7 MEDLINE  
AN 88041119 MEDLINE  
DN 88041119 PubMed ID: 3118367  
TI Sequence of a New World primate insulin having low biological potency and  
immunoreactivity.  
AU Seino S; Steiner D F; Bell G I  
CS Howard Hughes Medical Institute, University of Chicago, IL 60637.  
NC DK-13914 (NIDDK)  
DK-20595 (NIDDK)  
SO PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF  
AMERICA, (1987 Nov) 84 (21) 7423-7.  
Journal code: 7505876. ISSN: 0027-8424.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
OS GENBANK-J02989  
EM 198712  
ED Entered STN: 19900305  
Last Updated on STN: 20000303  
Entered Medline: 19871209

=> S urea AND insulin

55067 UREA  
446 UREAS  
55256 UREA  
(UREA OR UREAS)

197338 INSULIN  
1266 INSULINS  
197352 INSULIN  
(INSULIN OR INSULINS)

L5 1913 UREA AND INSULIN

=> S L5 AND precursor

60418 PRECURSOR  
61005 PRECURSORS  
107445 PRECURSOR  
(PRECURSOR OR PRECURSORS)

L6 23 L5 AND PRECURSOR

=> D L6 1-23

L6 ANSWER 1 OF 23 MEDLINE  
AN 2002150074 MEDLINE  
DN 21876925 PubMed ID: 11882926  
TI Circulating transforming growth factor beta1 (TGFbeta1) is elevated by

extensive exercise.

AU Hering S; Jost C; Schulz R; Hellmich B; Schatz H; Pfeiffer  
 CS Department of Internal Medicine, University-Hospital, BG-Clinic  
 "Bergmannsheil", Ruhr-University Bochum, 44789 Bochum, Germany..  
 steffen.hering@ruhr-uni-bochum.de

SO Eur J Appl Physiol, (2002 Mar) 86 (5) 406-10.  
 Journal code: 100954790. ISSN: 1439-6319.

CY Germany; Germany, Federal Republic of  
 DT (CLINICAL TRIAL)  
 Journal; Article; (JOURNAL ARTICLE)

LA English  
 FS Priority Journals  
 EM 200208  
 ED Entered STN: 20020308  
 Last Updated on STN: 20030105  
 Entered Medline: 20020828

L6 ANSWER 2 OF 23 MEDLINE  
 AN 2002000655 MEDLINE  
 DN 21626340 PubMed ID: 11754524  
 TI Disorders of glutamate metabolism.  
 AU Kelly A; Stanley C A  
 CS Division of Endocrinology, Department of Pediatrics, The Children's  
 Hospital of Philadelphia, University of Pennsylvania Medical School,  
 19104, USA.

NC M01 RR 00240 (NCRR)  
 R01 DK 53012 (NIDDK)  
 R01 DK 56268 (NIDDK)  
 T32DK 07314 (NIDDK)

SO MENTAL RETARDATION AND DEVELOPMENTAL DISABILITIES RESEARCH REVIEWS, (2001)  
 7 (4) 287-95. Ref: 89  
 Journal code: 9517974. ISSN: 1080-4013.

CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, TUTORIAL)

LA English  
 FS Priority Journals  
 EM 200203  
 ED Entered STN: 20020102  
 Last Updated on STN: 20020307  
 Entered Medline: 20020306

L6 ANSWER 3 OF 23 MEDLINE  
 AN 2001297184 MEDLINE  
 DN 21272036 PubMed ID: 11378667  
 TI Rat liver responsiveness to gluconeogenic substrates during  
 \*\*\*insulin\*\*\* -induced hypoglycemia.

AU de Souza H M; Borba-Murad G R; Ceddia R B; Curi R; Vardanega-Peicher M;  
 Bazotte R B  
 CS Departamento de Ciencias Fisiologicas, Universidade Estadual de Londrina,  
 Londrina, PR, Brazil.

SO BRAZILIAN JOURNAL OF MEDICAL AND BIOLOGICAL RESEARCH, (2001 Jun) 34 (6)  
 771-7.  
 Journal code: 8112917. ISSN: 0100-879X.

CY Brazil  
 DT Journal; Article; (JOURNAL ARTICLE)

LA English  
 FS Priority Journals  
 EM 200108  
 ED Entered STN: 20010806  
 Last Updated on STN: 20010806  
 Entered Medline: 20010802

L6 ANSWER 4 OF 23 MEDLINE  
 AN 1999436092 MEDLINE  
 DN 99436092 PubMed ID: 10506142  
 TI Studies of hepatic glutamine metabolism in the perfused rat liver with  
 (15)N-labeled glutamine.

AU Nissim I; Brosnan M E; Yudkoff M; Brosnan J T  
 CS Division of Child Development, Department of Pediatrics, University of  
 Pennsylvania School of Medicine, Philadelphia, Pennsylvania 19104, USA.

NC DK-53761 (NIDDK)  
 HD-34900 (NICHD)  
 NS-37915 (NINDS)

SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1999 Oct 8) 274 (41) 28958-65.

Journal code: 2985121R. ISSN: 0021-9258.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199911  
ED Entered STN: 20000111  
Last Updated on STN: 20000111  
Entered Medline: 19991109

L6 ANSWER 5 OF 23 MEDLINE  
AN 1999354446 MEDLINE  
DN 99354446 PubMed ID: 10425714  
TI Effect of gastric inhibitory polypeptide on bovine fat metabolism.  
AU Dawson J M; Greathead H M; Sessions V A; Tye F M; Batty P J  
CS Division of Nutritional Biochemistry, School of Biological Sciences,  
University of Nottingham, Loughborough, Leics, UK..  
janet.dawson@nottingham.ac.uk  
SO COMPARATIVE BIOCHEMISTRY AND PHYSIOLOGY. PART B, BIOCHEMISTRY AND  
MOLECULAR BIOLOGY, (1999 May) 123 (1) 79-88.  
Journal code: 9516061. ISSN: 1096-4959.  
CY ENGLAND: United Kingdom  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199911  
ED Entered STN: 20000111  
Last Updated on STN: 20000111  
Entered Medline: 19991103

L6 ANSWER 6 OF 23 MEDLINE  
AN 1999116886 MEDLINE  
DN 99116886 PubMed ID: 9920158  
TI Glucagon-like peptide-1 has no \*\*\*insulin\*\*\* -like effects in  
\*\*\*insulin\*\*\* -dependent diabetic dogs maintained normoglycemic and  
normoinsulinemic.  
AU Freyse E J; Knospe S; Becher T; El Hag O; Goke B; Fischer U  
CS Diabetes Institute Gerhardt Katsch, Karlsburg, Germany.  
SO METABOLISM: CLINICAL AND EXPERIMENTAL, (1999 Jan) 48 (1) 134-7.  
Journal code: 0375267. ISSN: 0026-0495.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199902  
ED Entered STN: 19990216  
Last Updated on STN: 19990216  
Entered Medline: 19990204

L6 ANSWER 7 OF 23 MEDLINE  
AN 97278973 MEDLINE  
DN 97278973 PubMed ID: 9133550  
TI Blood glucose lowering and glucagonostatic effects of glucagon-like  
peptide I in \*\*\*insulin\*\*\* -deprived diabetic dogs.  
AU Freyse E J; Becher T; El-Hag O; Knospe S; Goke B; Fischer U  
CS Gerhardt Katsch Institute of Diabetes Karlsburg of the Ernst Moritz Arndt  
University, Greifswald, Germany.. diabetes@diabetes.medizin.uni-  
greifswald.d400.de  
SO DIABETES, (1997 May) 46 (5) 824-8.  
Journal code: 0372763. ISSN: 0012-1797.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Abridged Index Medicus Journals; Priority Journals  
EM 199705  
ED Entered STN: 19970609  
Last Updated on STN: 19970609  
Entered Medline: 19970528

L6 ANSWER 8 OF 23 MEDLINE  
AN 97094892 MEDLINE  
DN 97094892 PubMed ID: 8940126  
TI Regulation of [15N] \*\*\*urea\*\*\* synthesis from [5-15N]glutamine. Role of  
pH, hormones, and pyruvate.  
AU Nissim I; Yudkoff M; Brosnan J T  
CS Division of Biochemical Development, The Children's Hospital of

NC Philadelphia, Philadelphia Pennsylvania, USA.  
 DK-39348 (NIDDK)  
 SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1996 Dec 6) 271 (49) 31234-42.  
 Journal code: 2985121R. ISSN: 0021-9258.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199701  
 ED Entered STN: 19970128  
 Last Updated on STN: 19980206  
 Entered Medline: 19970109

L6 ANSWER 9 OF 23 MEDLINE  
 AN 95250697 MEDLINE  
 DN 95250697 PubMed ID: 7733029  
 TI whole-body protein turnover in response to hyperinsulinemia in humans  
 postabsorptively with [15N]glycine as tracer.  
 AU Ang B C; Halliday D; Powell-Tuck J  
 CS Department of Human Nutrition, London Hospital Medical College, UK.  
 SO AMERICAN JOURNAL OF CLINICAL NUTRITION, (1995 May) 61 (5) 1062-6.  
 Journal code: 0376027. ISSN: 0002-9165.  
 CY United States  
 DT (CLINICAL TRIAL)  
 Journal; Article; (JOURNAL ARTICLE)  
 (RANDOMIZED CONTROLLED TRIAL)  
 LA English  
 FS Abridged Index Medicus Journals; Priority Journals  
 EM 199505  
 ED Entered STN: 19950608  
 Last Updated on STN: 19950608  
 Entered Medline: 19950530

L6 ANSWER 10 OF 23 MEDLINE  
 AN 94331380 MEDLINE  
 DN 94331380 PubMed ID: 8054322  
 TI The effects of energy source and tryptophan on the rate of protein  
 synthesis and on hormones of the entero-insular axis in the piglet.  
 AU Ponter A A; Cortamira N O; Seve B; Salter D N; Morgan L M  
 CS Institute of Grassland and Environmental Research, Shinfield, Reading.  
 SO BRITISH JOURNAL OF NUTRITION, (1994 May) 71 (5) 661-74.  
 Journal code: 0372547. ISSN: 0007-1145.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199409  
 ED Entered STN: 19940920  
 Last Updated on STN: 19980206  
 Entered Medline: 19940915

L6 ANSWER 11 OF 23 MEDLINE  
 AN 94171129 MEDLINE  
 DN 94171129 PubMed ID: 8125389  
 TI Can arginine and ornithine support gut functions?.  
 AU Cynober L  
 CS Laboratoire de Biochimie, Hopital Saint-Antoine, Paris, France.  
 SO GUT, (1994 Jan) 35 (1 Suppl) S42-5. Ref: 42  
 Journal code: 2985108R. ISSN: 0017-5749.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, TUTORIAL)  
 LA English  
 FS Abridged Index Medicus Journals; Priority Journals  
 EM 199404  
 ED Entered STN: 19940420  
 Last Updated on STN: 19940420  
 Entered Medline: 19940414

L6 ANSWER 12 OF 23 MEDLINE  
 AN 92048550 MEDLINE  
 DN 92048550 PubMed ID: 1943749  
 TI Glucose infusion improves endogenous protein synthesis efficiency in  
 multiple trauma victims.  
 AU Jeevanandam M; Leland D; Shamos R F; Casano S F; Schiller W R

CS Trauma Center, St. Joseph's Hospital and Medical Center, Phoenix, AZ  
85013.  
SO METABOLISM: CLINICAL AND EXPERIMENTAL, (1991 Nov) 40 (11) 1199-206.  
Journal code: 0375267. ISSN: 0026-0495.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199112  
ED Entered STN: 19920124  
Last Updated on STN: 19920124  
Entered Medline: 19911212

L6 ANSWER 13 OF 23 MEDLINE  
AN 91231836 MEDLINE  
DN 91231836 PubMed ID: 2030330  
TI Effects of truncated glucagon-like peptide-1 on the responses of starved  
sheep to glucose.  
AU Faulkner A; Pollock H T  
CS Hannah Research Institute, Ayr.  
SO JOURNAL OF ENDOCRINOLOGY, (1991 Apr) 129 (1) 55-8.  
Journal code: 0375363. ISSN: 0022-0795.  
CY ENGLAND: United Kingdom  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199106  
ED Entered STN: 19910707  
Last Updated on STN: 19910707  
Entered Medline: 19910618

L6 ANSWER 14 OF 23 MEDLINE  
AN 91155743 MEDLINE  
DN 91155743 PubMed ID: 2000038  
TI Hepatic uptake and release of glucose, lactate, and amino acids in acutely  
uremic dogs.  
AU Cianciaruso B; Bellizzi V; Napoli R; Sacca L; Kopple J D  
CS Department of Internal Medicine, II School of Medicine, University of  
Naples, Italy.  
SO METABOLISM: CLINICAL AND EXPERIMENTAL, (1991 Mar) 40 (3) 261-9.  
Journal code: 0375267. ISSN: 0026-0495.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199104  
ED Entered STN: 19910428  
Last Updated on STN: 19970203  
Entered Medline: 19910411

L6 ANSWER 15 OF 23 MEDLINE  
AN 90164752 MEDLINE  
DN 90164752 PubMed ID: 2407133  
TI The relationship between gluconeogenic substrate supply and glucose  
production in humans.  
AU Jahoor F; Peters E J; Wolfe R R  
CS Shriners Burns Institute, Galveston, Texas.  
NC 00073 (NIDDK)  
DK-33952  
SO AMERICAN JOURNAL OF PHYSIOLOGY, (1990 Feb) 258 (2 Pt 1) E288-96.  
Journal code: 0370511. ISSN: 0002-9513.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199003  
ED Entered STN: 19900601  
Last Updated on STN: 19980206  
Entered Medline: 19900328

L6 ANSWER 16 OF 23 MEDLINE  
AN 85226457 MEDLINE  
DN 85226457 PubMed ID: 3890950  
TI Expression of carbamoyl-phosphate synthetase I mRNA in Reuber hepatoma  
H-35 cells. Regulation by glucocorticoid and \*\*\*insulin\*\*\* .  
AU Kitagawa Y; Ryall J; Nguyen M; Shore G C

SO BIOCHIMICA ET BIOPHYSICA ACTA, (1985 Jun 24) 825 (2) 148-53  
 Journal code: 0217513. ISI 0006-3002.  
 CY Netherlands  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 198508  
 ED Entered STN: 19900320  
 Last Updated on STN: 19980206  
 Entered Medline: 19850814

L6 ANSWER 17 OF 23 MEDLINE  
 AN 84243785 MEDLINE  
 DN 84243785 PubMed ID: 6376914  
 TI Muscle protein turnover in uremia.  
 AU Mitch W E; Clark A S  
 NC AM 00750 (NIADDK)  
 AM 06660 (NIADDK)  
 AM 26903 (NIADDK)  
 SO KIDNEY INTERNATIONAL. SUPPLEMENT, (1983 Dec) 16 S2-8. Ref: 77  
 Journal code: 7508622. ISSN: 0098-6577.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 LA English  
 FS Priority Journals  
 EM 198408  
 ED Entered STN: 19900320  
 Last Updated on STN: 19970203  
 Entered Medline: 19840815

L6 ANSWER 18 OF 23 MEDLINE  
 AN 84081902 MEDLINE  
 DN 84081902 PubMed ID: 6690052  
 TI Flux of amino acids across the leg in weight-losing cancer patients.  
 AU Bennegard K; Lindmark L; Eden E; Svaninger G; Lundholm K  
 SO CANCER RESEARCH, (1984 Jan) 44 (1) 386-93.  
 Journal code: 2984705R. ISSN: 0008-5472.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 198402  
 ED Entered STN: 19900319  
 Last Updated on STN: 19900319  
 Entered Medline: 19840214

L6 ANSWER 19 OF 23 MEDLINE  
 AN 82165882 MEDLINE  
 DN 82165882 PubMed ID: 7040193  
 TI Effects of peptide hormones on \*\*\*urea\*\*\* - and glycogen-synthesis of  
 isolated hepatocytes and the influence of a toxic factor from burnt mouse  
 and human skin.  
 AU Scholmerich J; Kremer B; Schmidt K; Setyadharma H; Richter I E;  
 Schoenenberger G A  
 SO HORMONE AND METABOLIC RESEARCH, (1982 Feb) 14 (2) 80-4.  
 Journal code: 0177722. ISSN: 0018-5043.  
 CY GERMANY, WEST: Germany, Federal Republic of  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 198206  
 ED Entered STN: 19900317  
 Last Updated on STN: 19900317  
 Entered Medline: 19820614

L6 ANSWER 20 OF 23 MEDLINE  
 AN 79151110 MEDLINE  
 DN 79151110 PubMed ID: 372192  
 TI Proinsulin \*\*\*precursors\*\*\* in catfish pancreatic islets.  
 AU Albert S G; Permutt M A  
 SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1979 May 10) 254 (9) 3483-92.  
 Journal code: 2985121R. ISSN: 0021-9258.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English



FS Priority Journals  
EM 197906  
ED Entered STN: 19900315  
Last Updated on STN: 19900315  
Entered Medline: 19790629

L6 ANSWER 21 OF 23 MEDLINE  
AN 77118909 MEDLINE  
DN 77118909 PubMed ID: 190261  
TI Characteristics of high molecular weight \*\*\*insulins\*\*\* in insulinoma patients.  
AU Permutt M; Biesbroeck J; Chyn R  
SO JOURNAL OF CLINICAL ENDOCRINOLOGY AND METABOLISM, (1977 Mar) 44 (3) 536-44.  
Journal code: 0375362. ISSN: 0021-972X.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Abridged Index Medicus Journals; Priority Journals  
EM 197704  
ED Entered STN: 19900313  
Last Updated on STN: 19900313  
Entered Medline: 19770425

L6 ANSWER 22 OF 23 MEDLINE  
AN 75115098 MEDLINE  
DN 75115098 PubMed ID: 234976  
TI Chromatographic heterogeneity of \*\*\*insulin\*\*\* extracted from insulomas.  
AU Beischer W; Melani F; Keller L; Pfeiffer E F  
SO JOURNAL OF CLINICAL ENDOCRINOLOGY AND METABOLISM, (1975 Mar) 40 (3) 393-400.  
Journal code: 0375362. ISSN: 0021-972X.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Abridged Index Medicus Journals; Priority Journals  
EM 197505  
ED Entered STN: 19900310  
Last Updated on STN: 19950206  
Entered Medline: 19750528

L6 ANSWER 23 OF 23 MEDLINE  
AN 64098616 MEDLINE  
DN 64098616  
TI STRUCTURE OF PROTEINS.  
AU RICHARDS F M  
SO ANN REV BIOCHEM, (1963) 32 269-300.  
CY United States  
DT Journal  
LA English  
FS OLDMEDLINE  
EM 196408  
ED Entered STN: 19990716  
Last Updated on STN: 19990716  
STN INTERNATIONAL LOGOFF AT 16:51:06 ON 05 MAR 2003

Connecting via winsock to STN  
Welcome to STN International! \* \* \* \* \*  
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\* \* \* \* \* STN Columbus \* \* \* \* \*  
FILE 'HOME' ENTERED AT 12:18:53 ON 06 MAR 2003

=> file CAPLUS

=> s insulin AND proinsulin AND intramolecular chaperone  
L1 2 INSULIN AND PROINSULIN AND INTRAMOLECULAR CHAPERONE

=> D L1 1-2

L1 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2003 ACS  
AN 2002:576773 CAPLUS  
DN 137:274734  
TI Acidic residues on the N-terminus of \*\*\*proinsulin\*\*\* C-peptide are  
important for the folding of \*\*\*insulin\*\*\* precursor  
AU Chen, Li-Ming; Yang, Xing-Wen; Tang, Jian-Guo  
CS National Laboratory of Protein Engineering and Plant Genetic Engineering  
College of Life Sciences, Peking University, Beijing, 100871, Peop. Rep.  
China  
SO Journal of Biochemistry (Tokyo, Japan) (2002), 131(6), 855-859  
CODEN: JOBIAO; ISSN: 0021-924X  
PB Japanese Biochemical Society  
DT Journal  
LA English  
RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 2 OF 2 MEDLINE  
AN 2002299024 MEDLINE  
DN 22035558 PubMed ID: 12038982  
TI Acidic residues on the N-terminus of \*\*\*proinsulin\*\*\* C-Peptide are  
important for the folding of \*\*\*insulin\*\*\* precursor.  
AU Chen Li-Ming; Yang Xing-Wen; Tang Jian-Guo  
CS National Laboratory of Protein Engineering and Plant Genetic Engineering,  
College of Life Sciences, Peking University, Beijing, People's Republic of  
China.  
SO JOURNAL OF BIOCHEMISTRY, (2002 Jun) 131 (6) 855-9.  
Journal code: 0376600. ISSN: 0021-924X.  
CY Japan  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 200301  
ED Entered STN: 20020602  
Last Updated on STN: 20030103  
Entered Medline: 20030102

=> s intramolecular chaperone  
L2 164 INTRAMOLECULAR CHAPERONE

=> S L2 AND human growth hormone  
L3 0 L2 AND HUMAN GROWTH HORMONE

=> S L2 AND hGH  
L4 0 L2 AND HGH

=> S human growth hormone  
L5 12056 HUMAN GROWTH HORMONE

=> s human growth hormone OR hGH  
L6 14375 HUMAN GROWTH HORMONE OR HGH

=> S L6 AND insulin  
L7 3534 L6 AND INSULIN

=> S L6 AND proinsulin  
L8 70 L6 AND PROINSULIN

=> s L8 AND urea  
L9 2 L8 AND UREA

=> D L9 1-2

L9 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2003 ACS  
 AN 1999:640887 CAPLUS  
 DN 131:267960  
 TI Manufacture of proteins as fusion products with peptides that promoter  
 protein folding and the manufacture of correctly-folded proteins  
 IN Gan, Zhongru  
 PA Tonghua Gantech Biotechnology Ltd., Peop. Rep. China  
 SO PCT Int. Appl., 46 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

|        | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|--------|---|------|----------|-----------------|----------|
| PI     | WO 9950302  | A1   | 19991007 | WO 1998-CN52    | 19980331 |
|        | W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,<br>DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG,<br>KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX,<br>NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,<br>UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM<br>RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI,<br>FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM,<br>GA, GN, ML, MR, NE, SN, TD, TG |      |          |                 |          |
|        | CA 2324513  | AA   | 19991007 | CA 1998-2324513 | 19980331 |
|        | AU 9867164  | A1   | 19991018 | AU 1998-67164   | 19980331 |
|        | BR 9815788  | A    | 20001128 | BR 1998-15788   | 19980331 |
|        | EP 1066328  | A1   | 20010110 | EP 1998-912192  | 19980331 |
|        | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,<br>IE, FI  |      |          |                 |          |
|        | US 2002164712   | A1   | 20021107 | US 2002-54873   | 20020122 |
| PRAI   | WO 1998-CN52  | A    | 19980331 |                 |          |
|        | US 2000-423100  | A1   | 20001211 |                 |          |
| RE.CNT | 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD<br>ALL CITATIONS AVAILABLE IN THE RE FORMAT  |      |          |                 |          |

L9 ANSWER 2 OF 2 MEDLINE  
 AN 83186637 MEDLINE  
 DN 83186637 PubMed ID: 400741  
 TI Partial purification, characterization, and assay of a slightly acidic  
 insulin-like peptide (ILAs) from human plasma.  
 AU Posner B I; Guyda H J; Corvol M T; Rappaport R; Harley C; Goldstein S  
 SO JOURNAL OF CLINICAL ENDOCRINOLOGY AND METABOLISM, (1978 Dec) 47 (6)  
 1240-50.  
 Journal code: 0375362. ISSN: 0021-972X.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Abridged Index Medicus Journals; Priority Journals  
 EM 198306  
 ED Entered STN: 19900318  
 Last Updated on STN: 19900318  
 Entered Medline: 19830617

=> file MEDLINE  
 => s hGH OR human growth hormone  
     3268 HGH  
     16 HGHS  
     3271 HGH  
       (HGH OR HGHS)  
     8005805 HUMAN  
     108734 HUMANS  
     8026892 HUMAN  
       (HUMAN OR HUMANS)  
     657726 GROWTH  
     1352 GROWTHS  
     658751 GROWTH  
       (GROWTH OR GROWTHS)  
     212139 HORMONE  
     175587 HORMONES  
     329436 HORMONE  
       (HORMONE OR HORMONES)  
     5370 HUMAN GROWTH HORMONE  
       (HUMAN(W)GROWTH(W)HORMONE)  
 L10 6777 HGH OR HUMAN GROWTH HORMONE

=> S L10 AND insulin  
197381 INSULIN  
1266 INSULINS  
197395 INSULIN  
(INSULIN OR INSULINS)  
L11 1826 L10 AND INSULIN

=> S L11 AND chaotropic  
778 CHAOTROPIC  
1 CHAOTROPICS  
778 CHAOTROPIC  
(CHAOTROPIC OR CHAOTROPICS)  
L12 0 L11 AND CHAOTROPIC

=> S chaotropic agent  
778 CHAOTROPIC  
1 CHAOTROPICS  
778 CHAOTROPIC  
(CHAOTROPIC OR CHAOTROPICS)  
149324 AGENT  
729173 AGENTS  
825656 AGENT  
(AGENT OR AGENTS)  
L13 330 CHAOTROPIC AGENT  
(CHAOTROPIC(W)AGENT)

=> S L13 AND L10  
L14 0 L13 AND L10

=> S urea OR mercaptan  
55083 UREA  
446 UREAS  
55272 UREA  
(UREA OR UREAS)  
281 MERCAPTAN  
166 MERCAPTANS  
432 MERCAPTAN  
(MERCAPTAN OR MERCAPTANS)  
L15 55699 UREA OR MERCAPTAN

=> S L15 AND hGH  
3268 HGH  
16 HGHS  
3271 HGH  
(HGH OR HGHS)  
L16 37 L15 AND HGH

=> D L16 1-37

L16 ANSWER 1 OF 37 MEDLINE  
AN 2002508769 MEDLINE  
DN 21692761 PubMed ID: 12332922  
TI Suppression of growth hormone-dependent human serum sulfation factor by  
estrogen.  
AU Wiedemann E; Schwartz E  
SO J Clin Endocrinol, (1972 January) 34 51-8.  
Journal code: 17840150R. ISSN: 0368-1610.  
Report No.: PIP-720447; POP-00017253.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Population  
EM 198001  
ED Entered STN: 20021101  
Last Updated on STN: 20021101  
Entered Medline: 19800103

L16 ANSWER 2 OF 37 MEDLINE  
AN 2000472300 MEDLINE  
DN 20346623 PubMed ID: 10890569  
TI Recombinant prolactin receptor extracellular domain of rainbow trout  
(Oncorhynchus mykiss): subcloning, preparation, and characterization.  
AU Sandowski Y; Cohen Y; Le Rouzic P; Bignon C; Rentier-Delrue F; Djiane J;  
Prunet P; Gertler A  
CS Institute of Biochemistry, Food Science and Nutrition, Faculty of

Agricultural, Food and Environmental Quality Sciences, The Hebrew  
 University of Jerusalem, Rehovot, Israel.  
 SO GENERAL AND COMPARATIVE ENDOCRINOLOGY, (2000 May) 118 (2) 302-9.  
 Journal code: 0370735. ISSN: 0016-6480.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 200010  
 ED Entered STN: 20001012  
 Last Updated on STN: 20001012  
 Entered Medline: 20001002

L16 ANSWER 3 OF 37 MEDLINE  
 AN 2000252155 MEDLINE  
 DN 20252155 PubMed ID: 10794181  
 TI Recombinant extracellular domain of rabbit growth hormone receptor and  
 biological activity of somatogenic hormones.  
 AU Sakal E; Chapnik-Cohen N; Belair L; Djiane J; Gertler A  
 CS Institute of Biochemistry, Food Science and Nutrition, Faculty of  
 Agricultural, Food, and Environmental Quality Sciences, The Hebrew  
 University of Jerusalem, Rehovot, Israel.  
 SO PREPARATIVE BIOCHEMISTRY AND BIOTECHNOLOGY, (2000 May) 30 (2) 107-23.  
 Journal code: 9607037. ISSN: 1082-6068.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 200007  
 ED Entered STN: 20000810  
 Last Updated on STN: 20000810  
 Entered Medline: 20000726

L16 ANSWER 4 OF 37 MEDLINE  
 AN 2000153321 MEDLINE  
 DN 20153321 PubMed ID: 10686149  
 TI Optimization of inclusion body solubilization and renaturation of  
 recombinant human growth hormone from Escherichia coli.  
 AU Patra A K; Mukhopadhyay R; Mukhija R; Krishnan A; Garg L C; Panda A K  
 CS Product Development Cell, Gene Regulation Laboratory, National Institute  
 of Immunology, Aruna Asaf Ali Marg, New Delhi, 110067, India.  
 SO PROTEIN EXPRESSION AND PURIFICATION, (2000 Mar) 18 (2) 182-92.  
 Journal code: 9101496. ISSN: 1046-5928.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 200005  
 ED Entered STN: 20000518  
 Last Updated on STN: 20000518  
 Entered Medline: 20000509

L16 ANSWER 5 OF 37 MEDLINE  
 AN 1998021151 MEDLINE  
 DN 98021151 PubMed ID: 9380235  
 TI IGF-I/IGFBP-1 as an index for discrimination between responder and  
 nonresponder to recombinant human growth hormone in malnourished uremic  
 patients on hemodialysis.  
 AU Shinobe M; Sanaka T; Nihei H; Sugino N  
 CS Department of Medicine, Tokyo Women's Medical College, Japan.  
 SO NEPHRON, (1997) 77 (1) 29-36.  
 Journal code: 0331777. ISSN: 0028-2766.  
 CY Switzerland  
 DT (CLINICAL TRIAL)  
 Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199711  
 ED Entered STN: 19971224  
 Last Updated on STN: 19971224  
 Entered Medline: 19971110

L16 ANSWER 6 OF 37 MEDLINE  
 AN 96261864 MEDLINE  
 DN 96261864 PubMed ID: 8777919  
 TI The effect of human growth hormone therapy on L-(methyl-2H3)-leucine

turnover and urinary pseudouridine concentration in patients with  
 Ullrich-Turner syndrome.  
 AU Bohles H; Brendel L; Forster H; Trager K; Vogt J; Georgieff M  
 CS Zentrum der Kinderheilkunde, Klinikum der Johann Wolfgang  
 Goethe-Universität, Frankfurt/Main, Germany.  
 SO EUROPEAN JOURNAL OF PEDIATRICS, (1996 Apr) 155 (4) 275-80.  
 Journal code: 7603873. ISSN: 0340-6199.  
 CY GERMANY: Germany, Federal Republic of  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199609  
 ED Entered STN: 19960924  
 Last Updated on STN: 19960924  
 Entered Medline: 19960917

L16 ANSWER 7 OF 37 MEDLINE  
 AN 96227605 MEDLINE  
 DN 96227605 PubMed ID: 8674857  
 TI Preparation and characterization of recombinant prolactin receptor  
 extracellular domain from rat.  
 AU Sandowski Y; Nagano M; Bignon C; Djiane J; Kelly P A; Gertler A  
 CS Department of Biochemistry, Food Science and Nutrition, Faculty of  
 Agriculture, Hebrew University of Jerusalem, Rehovot, Israel.  
 SO MOLECULAR AND CELLULAR ENDOCRINOLOGY, (1995 Nov 30) 115 (1) 1-11.  
 Journal code: 7500844. ISSN: 0303-7207.  
 CY Ireland  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199608  
 ED Entered STN: 19960822  
 Last Updated on STN: 19970203  
 Entered Medline: 19960809

L16 ANSWER 8 OF 37 MEDLINE  
 AN 95264383 MEDLINE  
 DN 95264383 PubMed ID: 7538170  
 TI Resistance of nitrogen metabolism to growth hormone treatment in the early  
 phase after injury of patients with multiple injuries.  
 AU Roth E; Valentini L; Semsroth M; Holzenbein T; Winkler S; Blum W F; Ranke  
 M B; Schemper M; Hammerle A; Karner J  
 CS Surgical Department, University of Vienna, Austria.  
 SO JOURNAL OF TRAUMA, (1995 Jan) 38 (1) 136-41.  
 Journal code: 0376373. ISSN: 0022-5282.  
 CY United States  
 DT (CLINICAL TRIAL)  
 Journal; Article; (JOURNAL ARTICLE)  
 (RANDOMIZED CONTROLLED TRIAL)  
 LA English  
 FS Abridged Index Medicus Journals; Priority Journals  
 EM 199506  
 ED Entered STN: 19950621  
 Last Updated on STN: 19960129  
 Entered Medline: 19950615

L16 ANSWER 9 OF 37 MEDLINE  
 AN 94003922 MEDLINE  
 DN 94003922 PubMed ID: 8400793  
 TI [Effects of short-term application of recombinant human growth hormone on  
 \*\*\*urea\*\*\* production rate in patients in the early postoperative  
 phase].  
 Effekte einer kurzzeitigen Applikation von rekombinantem humanem  
 Wachstumshormon auf die Harnstoffproduktionsrate von Patienten in der  
 frühen postoperativen Phase.  
 AU Gottardis M; Gruber E; Benzer A; Murr C; Schmoigl C; Hackl J M; Balogh D  
 CS Universitätsklinik für Anästhesie und Allgemeine Intensivmedizin,  
 Innsbruck, Österreich.  
 SO INFUSIONSTHERAPIE UND TRANSFUSIONSMEDIZIN, (1993 Aug) 20 (4) 142-7.  
 Journal code: 9209406. ISSN: 1019-8466.  
 CY Switzerland  
 DT (CLINICAL TRIAL)  
 Journal; Article; (JOURNAL ARTICLE)  
 (RANDOMIZED CONTROLLED TRIAL)  
 LA German  
 FS Priority Journals

EM 199311  
ED Entered STN: 19940117  
Last Updated on STN: 19940117  
Entered Medline: 19931123

L16 ANSWER 10 OF 37 MEDLINE  
AN 93136795 MEDLINE  
DN 93136795 PubMed ID: 1486334  
TI Effects of insulin-like growth factor I or human growth hormone in fasted rats.  
AU Asakawa K; Hizuka N; Takano K; Horikawa R; Sukegawa I; Demura H; Shizume K  
CS Department of Medicine, Tokyo women's Medical College, Japan.  
SO GROWTH REGULATION, (1992 Mar) 2 (1) 40-4.  
Journal code: 9106990. ISSN: 0956-523X.  
CY SCOTLAND: United Kingdom  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199302  
ED Entered STN: 19930312  
Last Updated on STN: 19930312  
Entered Medline: 19930225

L16 ANSWER 11 OF 37 MEDLINE  
AN 92285829 MEDLINE  
DN 92285829 PubMed ID: 1598669  
TI Decreased growth hormone levels in the catabolic phase of severe injury.  
AU Jeevanandam M; Ramias L; Shamos R F; Schiller W R  
CS Trauma Center, St. Joseph's Hospital and Medical Center, Phoenix, Ariz. 85013.  
SO SURGERY, (1992 May) 111 (5) 495-502.  
Journal code: 0417347. ISSN: 0039-6060.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Abridged Index Medicus Journals; Priority Journals  
EM 199207  
ED Entered STN: 19920717  
Last Updated on STN: 19920717  
Entered Medline: 19920709

L16 ANSWER 12 OF 37 MEDLINE  
AN 92227294 MEDLINE  
DN 92227294 PubMed ID: 1808366  
TI Improvement of malnutrition indices in adult patients with end stage renal disease by recombinant human growth hormone.  
AU Sanaka T; Sugino N  
CS Department of Medicine, Kidney Center, Tokyo women's Medical College.  
SO NIPPON JINZO GAKKAI SHI. JAPANESE JOURNAL OF NEPHROLOGY, (1991 Nov) 33 (11) 1153-9.  
Journal code: 7505731. ISSN: 0385-2385.  
CY Japan  
DT Journal; Article; (JOURNAL ARTICLE)  
LA Japanese  
FS Priority Journals  
EM 199205  
ED Entered STN: 19920607  
Last Updated on STN: 19920607  
Entered Medline: 19920518

L16 ANSWER 13 OF 37 MEDLINE  
AN 92217902 MEDLINE  
DN 92217902 PubMed ID: 1806470  
TI Combination ultrafiltration and 6 M \*\*\*urea\*\*\* treatment of human growth hormone effectively minimizes risk from potential Creutzfeldt-Jakob disease virus contamination.  
AU Pocchiari M; Peano S; Conz A; Eshkol A; Maillard F; Brown P; Gibbs C J Jr; Xi Y G; Tenham-Fisher E; Macchi G  
CS Dipartimento di Biologia, Universita di Lecce, Italia.  
SO HORMONE RESEARCH, (1991) 35 (3-4) 161-6.  
Journal code: 0366126. ISSN: 0301-0163.  
CY Switzerland  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199205

ED Entered STN: 19920529  
Last Updated on STN: 19920529  
Entered Medline: 19920514

L16 ANSWER 14 OF 37 MEDLINE  
AN 91306714 MEDLINE  
DN 91306714 PubMed ID: 1853714  
TI Potential effects of recombinant human growth hormone (r- \*\*\*hGH\*\*\* ) on somatic growth in uremic rats.  
AU Kawaguchi H; Komatsu Y; Hattori M; Ito K; Hizuka N; Takano K  
CS Department of Pediatric Nephrology, Tokyo women's Medical College, Japan.  
SO ACTA PAEDIATRICA JAPONICA, (1991 Feb) 33 (1) 6-14.  
Journal code: 0370357. ISSN: 0374-5600.  
CY Japan  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199108  
ED Entered STN: 19910908  
Last Updated on STN: 19910908  
Entered Medline: 19910822

L16 ANSWER 15 OF 37 MEDLINE  
AN 91155752 MEDLINE  
DN 91155752 PubMed ID: 2000045  
TI Growth hormone improves muscle protein metabolism and whole body nitrogen economy in man during a hyponitrogenous diet.  
AU Lundeborg S; Belfrage M; Wernerman J; von der Decken A; Thunell S; Vinnars E  
CS Department of Anesthesiology, St Goran's Hospital, Stockholm, Sweden.  
SO METABOLISM: CLINICAL AND EXPERIMENTAL, (1991 Mar) 40 (3) 315-22.  
Journal code: 0375267. ISSN: 0026-0495.  
CY United States  
DT (CLINICAL TRIAL)  
Journal; Article; (JOURNAL ARTICLE)  
(RANDOMIZED CONTROLLED TRIAL)  
LA English  
FS Priority Journals  
EM 199104  
ED Entered STN: 19910428  
Last Updated on STN: 19950206  
Entered Medline: 19910411

L16 ANSWER 16 OF 37 MEDLINE  
AN 90242861 MEDLINE  
DN 90242861 PubMed ID: 2185939  
TI Radioiodination of peptide hormones and immunoglobulin preparations: comparison of the chloramine T and iodogen method.  
AU Woltanski K P; Besch W; Keilacker H; Ziegler M; Kohnert K D  
CS Central Institute of Diabetes, Gerhardt Katsch, Karlsburg/GDR.  
SO EXPERIMENTAL AND CLINICAL ENDOCRINOLOGY, (1990 Feb) 95 (1) 39-46.  
Journal code: 8302802. ISSN: 0232-7384.  
CY GERMANY, EAST: German Democratic Republic  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199006  
ED Entered STN: 19900706  
Last Updated on STN: 19900706  
Entered Medline: 19900614

L16 ANSWER 17 OF 37 MEDLINE  
AN 90112761 MEDLINE  
DN 90112761 PubMed ID: 2514284  
TI Effect of administered human growth hormone on protein metabolism in septic rats.  
AU Okamura K; Okuma T; Tabira Y; Miyauchi Y  
CS Kumamoto University Medical School, Japan.  
SO JPEN. JOURNAL OF PARENTERAL AND ENTERAL NUTRITION, (1989 Sep-Oct) 13 (5) 450-4. Ref: 37  
Journal code: 7804134. ISSN: 0148-6071.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
(REVIEW, TUTORIAL)  
LA English



FS Priority Journals  
EM 199002  
ED Entered STN: 19900328  
Last Updated on STN: 19900328  
Entered Medline: 19900220

L16 ANSWER 18 OF 37 MEDLINE  
AN 90086636 MEDLINE  
DN 90086636 PubMed ID: 2596425  
TI Metabolic effects of a single administration of growth hormone on lipid and carbohydrate metabolism in normal-weight and obese subjects.  
AU Seng G; Galgoti C; Louisy P; Toussain P; Drouin P; Debry G  
CS Nutrition Department, University of Nancy I, France.  
SO AMERICAN JOURNAL OF CLINICAL NUTRITION, (1989 Dec) 50 (6) 1348-54.  
Journal code: 0376027. ISSN: 0002-9165.  
CY United States  
DT (CLINICAL TRIAL)  
Journal; Article; (JOURNAL ARTICLE)  
(RANDOMIZED CONTROLLED TRIAL)  
LA English  
FS Abridged Index Medicus Journals; Priority Journals  
EM 199001  
ED Entered STN: 19900328  
Last Updated on STN: 19990129  
Entered Medline: 19900116

L16 ANSWER 19 OF 37 MEDLINE  
AN 89360358 MEDLINE  
DN 89360358 PubMed ID: 2768759  
TI Human growth hormone stimulates liver regeneration in rats.  
AU Asakawa K; Hizuka N; Takano K; Horikawa R; Sukegawa I; Toyoda C; Shizume K  
CS Department of Medicine, Tokyo Women's Medical College and Research Laboratory, Japan.  
SO JOURNAL OF ENDOCRINOLOGICAL INVESTIGATION, (1989 May) 12 (5) 343-7.  
Journal code: 7806594. ISSN: 0391-4097.  
CY Italy  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 198909  
ED Entered STN: 19900309  
Last Updated on STN: 19900309  
Entered Medline: 19890922

L16 ANSWER 20 OF 37 MEDLINE  
AN 89235557 MEDLINE  
DN 89235557 PubMed ID: 2715756  
TI Measurement of human growth hormone in urine: development and validation of a sensitive and specific assay.  
AU Houd P; Edwards R  
CS North East Thames Region Immunoassay Unit (NETRIA), St Bartholomew's Hospital, London.  
SO JOURNAL OF ENDOCRINOLOGY, (1989 Apr) 121 (1) 167-75.  
Journal code: 0375363. ISSN: 0022-0795.  
CY ENGLAND: United Kingdom  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 198906  
ED Entered STN: 19900306  
Last Updated on STN: 19900306  
Entered Medline: 19890615

L16 ANSWER 21 OF 37 MEDLINE  
AN 89184277 MEDLINE  
DN 89184277 PubMed ID: 3237645  
TI Isolation of four isomers of the 20,000 dalton variant of human pituitary growth hormone.  
AU Brostedt P; Roos P  
CS Department of Biochemistry, University of Uppsala, Sweden.  
SO PREPARATIVE BIOCHEMISTRY, (1988) 18 (3) 277-91.  
Journal code: 1276634. ISSN: 0032-7484.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals

EM 198905  
ED Entered STN: 19900306  
Last Updated on STN: 19900306  
Entered Medline: 19890501

L16 ANSWER 22 OF 37 MEDLINE  
AN 89143124 MEDLINE  
DN 89143124 PubMed ID: 2645501  
TI \*\*\*Urea\*\*\* synthesis, nitrogen balance, and glucose turnover in growth-hormone-deficient children before and after growth hormone administration.  
AU Dahms W T; Owens R P; Kalhan S C; Kerr D S; Danish R K  
CS Department of Pediatrics, Rainbow Babies and Childrens Hospital, Cleveland, OH 44106.  
NC AM-25596 (NIADDK)  
HD-11089 (NICHHD)  
M01 RR-80 (NCRR)  
SO METABOLISM: CLINICAL AND EXPERIMENTAL, (1989 Mar) 38 (3) 197-203.  
Journal code: 0375267. ISSN: 0026-0495.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 198904  
ED Entered STN: 19900306  
Last Updated on STN: 19970203  
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L16 ANSWER 23 OF 37 MEDLINE  
AN 89025162 MEDLINE  
DN 89025162 PubMed ID: 3178489  
TI Insulinlike growth factor 1 production is inhibited in human sepsis.  
AU Dahn M S; Lange M P; Jacobs L A  
CS Surgical Service, Veterans Administration Medical Center, Allen Park, Mich.  
SO ARCHIVES OF SURGERY, (1988 Nov) 123 (11) 1409-14.  
Journal code: 9716528. ISSN: 0004-0010.  
CY United States  
DT (CLINICAL TRIAL)  
(CONTROLLED CLINICAL TRIAL)  
Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Abridged Index Medicus Journals; Priority Journals  
EM 198811  
ED Entered STN: 19900308  
Last Updated on STN: 19970203  
Entered Medline: 19881118

L16 ANSWER 24 OF 37 MEDLINE  
AN 88297836 MEDLINE  
DN 88297836 PubMed ID: 3403041  
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AU Gottardis M; Hackl J M  
CS Klinik fur Anesthesie und Allgemeine Intensivmedizin, Universitat Innsbruck, Osterreich.  
SO INFUSIONSTHERAPIE, (1988 Jun) 15 (3) 112-7.  
Journal code: 9001943. ISSN: 1011-6966.  
CY Switzerland  
DT Journal; Article; (JOURNAL ARTICLE)  
LA German  
FS Priority Journals  
EM 198809  
ED Entered STN: 19900308  
Last Updated on STN: 19900308  
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L16 ANSWER 25 OF 37 MEDLINE  
AN 88268423 MEDLINE  
DN 88268423 PubMed ID: 3390001  
TI Inactivation of human immunodeficiency virus during human growth hormone production.  
AU Dormont D; Vaslin B; Dubeaux D; Boussin F; Maillard F; Deslys J P  
CS Centre de Recherches, Service de Sante des Armees, Clamart, France.

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Journal code: 7506870. ISSN: 0304-8608.  
CY Austria  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals; AIDS  
EM 198808  
ED Entered STN: 19900308  
Last Updated on STN: 19980206  
Entered Medline: 19880808

L16 ANSWER 26 OF 37 MEDLINE  
AN 88197063 MEDLINE  
DN 88197063 PubMed ID: 3447943  
TI Growth hormone in urine: development of an ultrasensitive assay applicable to plasma and urine.  
AU Girard J; Erb T; Pampalone A; Eberle A N; Baumann J B  
CS University Children's Hospital, Basel, Switzerland.  
SO HORMONE RESEARCH, (1987) 28 (1) 71-80.  
Journal code: 0366126. ISSN: 0301-0163.  
CY Switzerland  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 198805  
ED Entered SIN: 19900308  
Last Updated on STN: 19900308  
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L16 ANSWER 27 OF 37 MEDLINE  
AN 88152169 MEDLINE  
DN 88152169 PubMed ID: 3345820  
TI Human growth hormone in urine: development of an ultrasensitive radiometric assay.  
AU Erb T; Karolyi G; Pampalone A; Eberle A N; Baumann J B; Burgisser E; Girard J  
CS University Children's Hospital, Basel, Switzerland.  
SO EXPERIENTIA, (1988 Feb 15) 44 (2) 155-7.  
Journal code: 0376547. ISSN: 0014-4754.  
CY Switzerland  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 198804  
ED Entered STN: 19900308  
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Entered Medline: 19880420

L16 ANSWER 28 OF 37 MEDLINE  
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CS Istituto di Neurologia, Universita Cattolica S. Cuore, Rome, Italy.  
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Journal code: 7506870. ISSN: 0304-8608.  
CY Austria  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 198803  
ED Entered STN: 19900308  
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L16 ANSWER 29 OF 37 MEDLINE  
AN 83161554 MEDLINE  
DN 83161554 PubMed ID: 6339541  
TI The molecular nature of circulating growth hormone in normal and acromegalic man: evidence for a principal and minor monomeric forms.  
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NC AM-27047 (NIADDK)  
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CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Abridged Index Medicus Journals; Priority Journals  
EM 198305  
ED Entered STN: 19900318  
Last Updated on STN: 19970203  
Entered Medline: 19830527

L16 ANSWER 30 OF 37 MEDLINE  
AN 81116355 MEDLINE  
DN 81116355 PubMed ID: 7007243  
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EM 198104  
ED Entered STN: 19900316  
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Entered Medline: 19810421

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AN 79194286 MEDLINE  
DN 79194286 PubMed ID: 221511  
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AU Waters M J; Friesen H G  
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CY United States  
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Entered Medline: 19790901

L16 ANSWER 32 OF 37 MEDLINE  
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DN 79151327 PubMed ID: 429482  
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measured in growth hormone-deficient human subjects.  
AU Bunner D L; Lewis U J; Vanderlaan W P  
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CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
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EM 197906  
ED Entered STN: 19900315  
Last Updated on STN: 19900315  
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L16 ANSWER 33 OF 37 MEDLINE  
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DN 79127084 PubMed ID: 84749  
TI An immunological approach to the study of protein conformational  
heterogeneity: its application to growth hormone.  
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Journal code: 0375040. ISSN: 0013-7227.  
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DT Journal; Article; (JOURNAL ARTICLE)  
LA English

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EM 197905  
ED Entered STN: 19900315  
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AN 77183207 MEDLINE  
DN 77183207 PubMed ID: 140746  
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Journal code: 7505439. ISSN: 0037-9026.  
CY France  
DT Journal; Article; (JOURNAL ARTICLE)  
LA French  
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EM 197707  
ED Entered STN: 19900314  
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L16 ANSWER 35 OF 37 MEDLINE  
AN 75214374 MEDLINE  
DN 75214374 PubMed ID: 1152091  
TI Alterations in hypothalamic function following thermal injury.  
AU Wilmore D W; Orcutt T W; Mason A D Jr; Pruitt B A  
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Journal code: 0376373. ISSN: 0022-5282.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Abridged Index Medicus Journals; Priority Journals  
EM 197511  
ED Entered STN: 19900310  
Last Updated on STN: 19900310  
Entered Medline: 19751106

L16 ANSWER 36 OF 37 MEDLINE  
AN 67021259 MEDLINE  
DN 67021259 PubMed ID: 5921153  
TI Comparative effect of animal prolactins and human growth hormone ( \*\*\*HGH\*\*\* ) in hypopituitary children.  
AU Blizzard R M; Drash A L; Jenkins M E; Spaulding J S; Glick A; Weldon V V; Powell G F; Raiti S  
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Journal code: 0375362. ISSN: 0021-972X.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
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EM 196701  
ED Entered STN: 19900101  
Last Updated on STN: 19900101  
Entered Medline: 19670108

L16 ANSWER 37 OF 37 MEDLINE  
AN 65076293 MEDLINE  
DN 65076293  
TI STUDIES WITH HUMAN GROWTH HORMONE ( \*\*\*HGH\*\*\* ).  
AU WRIGHT J C; BRASEL J A; ACETOT J R; FINKELSTEIN J W; KENNY F M; SPAULDING J S; BLIZZARD R M  
SO AMERICAN JOURNAL OF MEDICINE, (1965 APR) 38 499-516.  
ISSN: 0002-9343.  
CY United States  
DT Journal  
LA English  
FS OLDMEDLINE  
EM 196506  
ED Entered STN: 19990716  
Last Updated on STN: 19990716

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32 FILES SEARCHED...  
L17 679 INTRAMOLECULAR CHAPERONE

=> DUP REM L17  
DUPLICATE IS NOT AVAILABLE IN 'ADISINSIGHT, ADISNEWS, BIOCOMMERCE, DGENE,  
DRUGLAUNCH, DRUGMONOG2, DRUGUPDATES, FEDRIP, FOREGE, GENBANK, KOSMET,  
MEDICONF, NUTRACEUT, PHAR, PHARMAML, SYNTHLINE'.  
ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE  
PROCESSING COMPLETED FOR L17  
L18 178 DUP REM L17 (501 DUPLICATES REMOVED)

=> S L18 AND insulin  
20 FILES SEARCHED...  
40 FILES SEARCHED...  
L19 12 L18 AND INSULIN

=> D L19 1-12

L19 ANSWER 1 OF 12 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.  
AN 2002:469830 BIOSIS  
DN PREV200200469830  
TI Acidic residues on the N-terminus of proinsulin C-peptide are important  
for the folding of \*\*\*insulin\*\*\* precursor.  
AU Chen, Li-Ming; Yang, Xing-wen; Tang, Jian-Guo (1)  
CS (1) National Laboratory of Protein Engineering and Plant Genetic  
Engineering College of Life Sciences, Peking University, 100871, Beijing:  
lxzyx@pku.edu.cn China  
SO Journal of Biochemistry (Tokyo), (Jun., 2002) vol. 131, No. 6, pp.  
855-859. print.



DT Article  
LA English

L19 ANSWER 2 OF 12 BIOTECHDS COPYRIGHT 2003 THOMSON DERWENT AND ISI  
AN 2000-01038 BIOTECHDS  
TI New chimeric proteins containing human growth hormone fragment, used particularly for the production of human \*\*\*insulin\*\*\* ; human somatotropin and \*\*\*insulin\*\*\* precursor fusion protein production  
AU Gan Zhongru  
PA Tonghua-Gantech-Biotechnology  
LO Tonghua City, People's Republic of China.  
PI WO 9950302 7 Oct 1999  
AI WO 1998-CN52 31 Mar 1998  
PRAI WO 1998-CN52 31 Mar 1998  
DT Patent  
LA English  
OS WPI: 1999-610839 [52]

L19 ANSWER 3 OF 12 DGENE (C) 2003 THOMSON DERWENT  
AN AAY42861 protein DGENE  
TI New chimeric proteins containing human growth hormone fragment, used particularly for the production of human \*\*\*insulin\*\*\* -  
IN Gan Z  
PA (TONG-N) TONGHUA GANTECH BIOTECHNOLOGY LTD.  
PI WO 9950302 A1 19991007 46p  
AI WO 1998-CN52 19980331  
PRAI WO 1998-CN52 19980331  
DT Patent  
LA English  
OS 1999-610839 [52]

L19 ANSWER 4 OF 12 DGENE (C) 2003 THOMSON DERWENT  
AN AAY42860 protein DGENE  
TI New chimeric proteins containing human growth hormone fragment, used particularly for the production of human \*\*\*insulin\*\*\* -  
IN Gan Z  
PA (TONG-N) TONGHUA GANTECH BIOTECHNOLOGY LTD.  
PI WO 9950302 A1 19991007 46p  
AI WO 1998-CN52 19980331  
PRAI WO 1998-CN52 19980331  
DT Patent  
LA English  
OS 1999-610839 [52]

L19 ANSWER 5 OF 12 DGENE (C) 2003 THOMSON DERWENT  
AN AAY42859 protein DGENE  
TI New chimeric proteins containing human growth hormone fragment, used particularly for the production of human \*\*\*insulin\*\*\* -  
IN Gan Z  
PA (TONG-N) TONGHUA GANTECH BIOTECHNOLOGY LTD.  
PI WO 9950302 A1 19991007 46p  
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PRAI WO 1998-CN52 19980331  
DT Patent  
LA English  
OS 1999-610839 [52]

L19 ANSWER 6 OF 12 DGENE (C) 2003 THOMSON DERWENT  
AN AAY42858 protein DGENE  
TI New chimeric proteins containing human growth hormone fragment, used particularly for the production of human \*\*\*insulin\*\*\* -  
IN Gan Z  
PA (TONG-N) TONGHUA GANTECH BIOTECHNOLOGY LTD.  
PI WO 9950302 A1 19991007 46p  
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DT Patent  
LA English  
OS 1999-610839 [52]

L19 ANSWER 7 OF 12 DGENE (C) 2003 THOMSON DERWENT  
AN AAY42857 peptide DGENE  
TI New chimeric proteins containing human growth hormone fragment, used particularly for the production of human \*\*\*insulin\*\*\* -

IN Gan Z  
PA (TONG-N) TONGHUA GANTECH BIOTECHNOLOGY LTD.  
PI WO 9950302 A1 19991007 46p  
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PRAI WO 1998-CN52 19980331  
DT Patent  
LA English  
OS 1999-610839 [52]

L19 ANSWER 8 OF 12 DGENE (C) 2003 THOMSON DERWENT  
AN AAY42856 protein DGENE  
TI New chimeric proteins containing human growth hormone fragment, used particularly for the production of human \*\*\*insulin\*\*\* -

IN Gan Z  
PA (TONG-N) TONGHUA GANTECH BIOTECHNOLOGY LTD.  
PI WO 9950302 A1 19991007 46p  
AI WO 1998-CN52 19980331  
PRAI WO 1998-CN52 19980331  
DT Patent  
LA English  
OS 1999-610839 [52]

L19 ANSWER 9 OF 12 DGENE (C) 2003 THOMSON DERWENT  
AN AAY42855 protein DGENE  
TI New chimeric proteins containing human growth hormone fragment, used particularly for the production of human \*\*\*insulin\*\*\* -

IN Gan Z  
PA (TONG-N) TONGHUA GANTECH BIOTECHNOLOGY LTD.  
PI WO 9950302 A1 19991007 46p  
AI WO 1998-CN52 19980331  
PRAI WO 1998-CN52 19980331  
DT Patent  
LA English  
OS 1999-610839 [52]

L19 ANSWER 10 OF 12 IFIPAT COPYRIGHT 2003 IFI  
AN 10221005 IFIPAT;IFIUDB;IFICDB  
TI CHIMERIC PROTEIN CONTAINING AN \*\*\*INTRAMOLECULAR\*\*\* \*\*\*CHAPERONE\*\*\*  
-LIKE SEQUENCE

IN Gan Zhong-Ru (CN)  
PA Tonghua GanTech Biotechnology Ltd CN  
PI US 2002164712 A1 20021107  
AI US 2002-54873 20020122  
RLI US 2000-423100 20001211 CONTINUATION PENDING  
WO 1998-CN52 19980331 Section 371 PCT Filing UNKNOWN  
FI US 2002164712 20021107  
DT Utility; Patent Application - First Publication  
FS CHEMICAL  
APPLICATION

CLMN 77

GI 2 Figure(s).

FIGS. 1A and 1B. Structure of proinsulin and mature \*\*\*insulin\*\*\* with correctly formed disulfide bridges. 1A depicts the structure of proinsulin. 1B depicts the structure of mature \*\*\*insulin\*\*\* with correctly formed disulfide bridges.

FIG. 2. Map of the hGH-mini-proinsulin (SEQ ID NO: 6) expression vector (pZRhi-1).

L19 ANSWER 11 OF 12 USPATFULL  
AN 2002:338194 USPATFULL  
TI Oligomeric chaperone proteins  
IN Hill, Fergal Conan, Les Martres de Veyre, FRANCE  
Chatellier, Jean, Les Martres de Veyre, FRANCE  
Fersht, Alan Roy, Cambridge, UNITED KINGDOM  
PI US 2002193564 A1 20021219  
AI US 2001-7314 A1 20011108 (10)  
RLI Continuation-in-part of Ser. No. WO 2000-GB1822, filed on 12 May 2000, UNKNOWN  
PRAI GB 1999-11298 19990514  
GB 1999-30530 19991223  
DT Utility  
FS APPLICATION  
LN.CNT 2196  
INCL INCLM: 530/350.000  
INCLS: 435/235.100  
NCL NCLM: 530/350.000

IC NCLS: 435/235.100

[7]

ICM: C07K014-005

ICS: C12N007-00

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L19 ANSWER 12 OF 12 USPATFULL

AN 1998:17192 USPATFULL

TI Protein activation

IN Inouye, Masayori, Bridgewater, NJ, United States

PA University of Medicine and Dentistry of New Jersey, Newark, NJ, United States (U.S. corporation)

PI US 5719021 19980217

AI US 1992-923260 19920731 (7)

RLI Continuation-in-part of Ser. No. US 1989-346552, filed on 2 May 1989, now patented, Pat. No. US 5191063

DT Utility

FS Granted

LN.CNT 1783

INCL INCLM: 435/006.000

NCL NCLM: 435/006.000

IC [6]

ICM: C12Q011-68

ICS: C12P021-00; C12N009-96; C07K014-435

EXF 435/6; 435/68.1; 435/69.1; 435/183; 435/188; 530/324; 530/345; 530/350; 530/402; 530/427

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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